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DUN'S INTERNATIONAL REVIEW

is also published monthly in *SPANISH*, making twenty-four issues in the two languages per year.

The attention of every reader of the paper is particularly directed to the *BUYER'S GUIDE* on pages 3, 4, 6, 8, 10, 12, 13 and 14 and to the *ALPHABETICAL INDEX* of Advertisers on pages 15 and 16. At the present time buyers in every part of the world are no doubt interested in establishing new connections for the purchase of lines cut off by the European war and it is recommended that this Buyer's Guide be retained for reference as it contains a classified list of several hundred articles, together with the names of manufacturers or exporters from whom they may be obtained.

Correspondence regarding any topic of international trade interest is invited from readers of the Review and contributions on such subjects, if available for publication, will be paid for at space rates. Photographs of commercial scenes will be purchased, if suitable for reproduction. Manuscripts and photographs not used will be returned promptly if postage is sent for that purpose.

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The Motor Car World

Dry Goods Section

Courtesy Broadway-Park Place Company

From the tower of the Woolworth Building, 750 feet above the street level, there is a magnificent view of New York's land-locked harbor and of some of the skyscrapers along lower Broadway that make that thoroughfare like a narrow, high-walled canyon

WHAT NEW YORK HAS TO OFFER TO FOREIGN BUYERS

One of the Most Accessible and Convenient of the World's Great Markets, America's Metropolis has Many Attractions

PROBABLY more than fifty thousand persons around the globe had planned to visit Europe this autumn or winter to place their buying orders. But the great marts of that continent are disorganized or closed. One world market, however, is still open—one of the largest of all—New York, the gateway to America. Why not come to New York?

Under ordinary conditions this is one of the most accessible cities of the globe. A great fleet of the largest, swiftest and most palatial ocean steamers ever built traverses the Atlantic between it and the ports of Europe. Other lines of passenger and freight-carrying boats ply regularly between it and every port around the world. By the most traveled routes there are often several steamers arriving in a single day at New York; by others the arrivals may be less frequent, but in any event, no matter from where one wishes to embark, he need not wait long for the first ship to carry him to the commercial metropolis of the new world.

These steamers are practically great floating hotels. There are so many trans-Atlantic liners that the traveler has a wide range of choice. But all are comfortable, and the conveniences and luxuries they offer their passengers are proportionately greater than the rates of fare. Each line vies with its competitors in giving its patrons as much as possible in service, surroundings and safety for a very moderate monetary return.

The voyager may go to almost any extent he can afford in the luxuries and exclusiveness of travel. On one of the big steamers he can occupy as large and

Looking west from the Woolworth Tower one sees the Hudson River, its shores lined with the docks of the great trans-Atlantic liners—in the center of the stream is the Mauretania, outward bound. Northward the city's rooftops stretch to the horizon

Courtesy Broadway-Park Place Company

Courtesy Lamport & Holt Line

Smoke-room of the S. S. Vestris, one of the finely appointed passenger steamers plying between New York and South America

splendid a suite of rooms as in any great hotel. They will be furnished and decorated in royal style. A retinue of servants will wait on his bidding. He need see none of his fellow-passengers from the time he embarks and takes up his temporary residence in the imperial suite until he leaves the ship at the end of his voyage.

But to the person who likes to mix with his fellow men and to share their diversions on shipboard, a sea voyage is a delight that cannot be measured in mere monetary terms. The trip may take six days or ten, and there are many boats going to and fro across the Atlantic—from the very biggest and newest to those that are smaller—whose average accommodations are not only the height of comfort and convenience but really are more luxurious than the average person is accustomed to in his own home. And these surroundings and all that goes with them in the way of table fare may be had at a price that almost makes traveling cheaper than stopping at home.

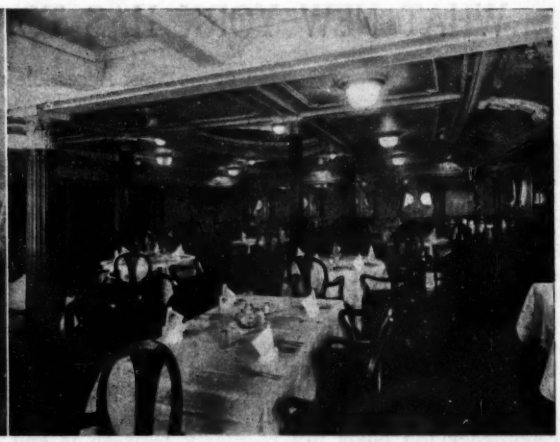
The North Atlantic passenger steamers are not unique in this respect, however. Boats smaller but fully as well appointed ply between other ports and New York. Some are vessels that come from far-away places, like the sea gates of Australia; others from the Far East, and still others from South America, the West Indies, ports of the Caribbean and those brought near by the opening of the Panama Canal. The vessels that run southward from New York are particularly well found in everything. While they are less pretentious than the great liners that ply on the Atlantic ferry, they equal them in comfort and convenience.

By land, also, the city's transportation facilities are unexcelled. All the great railway systems of America converge at New York, either by direct lines or through the medium of connecting or allied roads. They meet the steamship lines centering at this port and interchange with them a volume of business that exceeds that of any other city. It is possible for one to step aboard a railway train at the New York terminal of any one of half a score of great railroads and ride without change to almost any city of importance in the United States—and it must be remembered that the United States is a country of great distances compared with Western Europe.

In this way it is possible for the visitor to reach, comfortably and quickly, from New York, all the great manufacturing centers of the United States. The majority of these are not far from the Atlantic seaboard, usually within a few hours' ride by rail, and the most distant—excepting those beyond the Mississippi or on the Pacific Coast—not more than a day and a night journey away. Travel by rail in America, however, is exceedingly comfortable, even when the continuous journey covers the several days necessary for the transcontinental trip between the Atlantic and Pacific seaboards. The arrangement of the carriages and the general system of railroading in America necessarily have had to adapt themselves to the distances to be traversed. Dining and sleeping cars are

Courtesy United Fruit Co.

The "lounge" on one of the boats of the "Great White Fleet" that goes to the principal ports of the West Indies and Central America

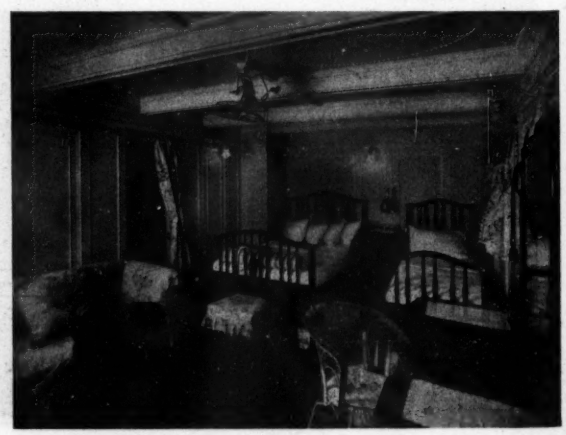


Courtesy United Fruit Co.

Snow-white napery, shining silver and glass make the dining room on one of these tropical steamers an incentive to appetite

Staterooms on the steamers that run to the summer coasts and islands of the Caribbean are models of luxury and comfort

Courtesy United Fruit Co.



a part of every through train. As the ocean steamers are floating hotels, so the American railway trains are hotels on wheels, even rivalling in their appointments the fixed places of abode in the great cities.

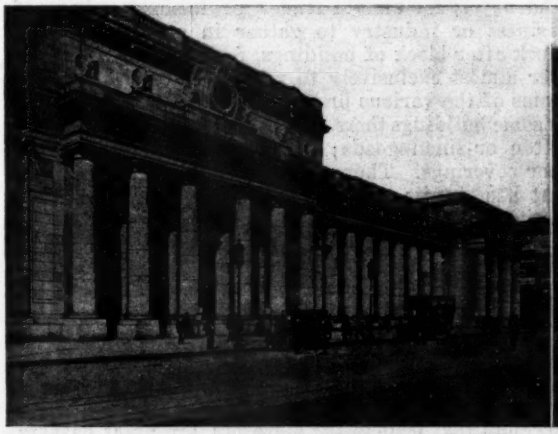
New York's best hotels are as luxuriously furnished as palaces, and the guests have at their service many time and labor saving conveniences. One may telephone from his hotel room to almost any city in the United States within a radius of from 1,500 to 2,000 miles. Denver, for example, is almost the latter distance from New York, but telephoning between these two cities is a matter of everyday occurrence. From one's hotel room, also, one can send a cablegram to any part of the world, or dispatch a wireless message to a ship at sea, or have an agent from any manufacturing or business concern represented in the city come to his apartments within a few minutes after being summoned. Samples may be brought to the hotel and business transacted there with as great facility as in an office or a store.

It would take more than one magazine article to describe the wonders of a great modern metropolitan hotel. These establishments are so highly systematized, and every possible adjunct that science can devise is so brought into play, that if the wishes of the guests cannot be anticipated, at least they are carried out in the least possible time after they are expressed.

Courtesy New York Central R. R.

The main outbound concourse of the Grand Central Terminal, New York City. It is 300 feet long, 120 feet wide and 125 feet high

service, in fact—to be had at a moment's notice. One may dine in the privacy of his own room, or may feast with a hundred others on every gastronomic luxury that the markets of the world afford.



Courtesy Pennsylvania R. R. Co.

View of the main entrance to the passenger terminal of the Pennsylvania Railroad in New York City

Courtesy New York Central R. R.

General view of the new Grand Central Terminal, New York City, showing the architectural harmony of the structure

In some hotels the air as well as the water is filtered. The temperature of a room can be kept at any desired degree for any length of time. There are interpreters, stenographers, valets and ladies' maids—every sort of

The spaciousness of the main waiting room of the Pennsylvania terminal may be judged from the size of the people on the floor

Courtesy Pennsylvania R. R. Co.

There are more than 250 hotels in New York in which one may live in splendor and enjoy every comfort of home, plus every convenience of a modern counting room, at an astonishingly modest rate. There are more than a thousand smaller hotels that are also desirable places of abode. They are convenient and comfortable and their charges are within the means of any traveler. Many of them are famous the world over among those from afar who patronize them year after year on their visits to New York.

But whether the hotel is modest or magnificent, the aim of those conducting it is nowadays to make it as "home-like" as possible. Richness of appointments finds its expression in elegant simplicity. While luxury is there in the highest degree, it is the rule today that in a modern hotel luxury and comfort must be combined in everything. The great city hotel probably approaches nearer perfection in housekeeping than it would be possible to attain in one's own home without the expenditure of a disproportionate amount of money.

Practically every hotel has a restaurant connected with it. The hotel's guests, however, may eat there or elsewhere, as they choose. There are thousands of individual restaurants, scattered all over the city. One can get a meal for ten cents in some places; in

Courtesy Ritz-Carlton Hotel

In New York's great hotels one has the choice of many places to dine in luxurious comfort. In summer it may be beneath awnings on the rooftop, where the coolest breezes blow, and in winter in one of the magnificently appointed rooms that are a feature of these palatial hostelries

others there is practically no limit to what one can spend. The person who has to count pennies or the one with unlimited resources will have no difficulty in finding any number of places that will fit his purse. The great restaurants and cafes of upper Broadway are famous the world over. They are among the show places of the city. The native of any civilized country in the world also can find eating places in New York where his own language is spoken by the waiters and where the food served is prepared by chefs from his country and perhaps from his own city. Here the stranger will be almost sure to meet compatriots and probably friends and acquaintances from his own land. New York is noted for being among the most cosmopolitan of the great cities of the world, and this finds one of its best expressions among the innumerable eating places.

Few of the great cities of the world have so much sunshine and so favorable a climate. There is a tonic quality in the air. The rigors of winter peculiar to the temperate zone are seldom felt before the first of January, and there is little snow or severe cold. The winters are brief. Spring comes usually about eight weeks after New Year's Day. Bad weather, at any season, seldom has any deterrent influence on the city's business.

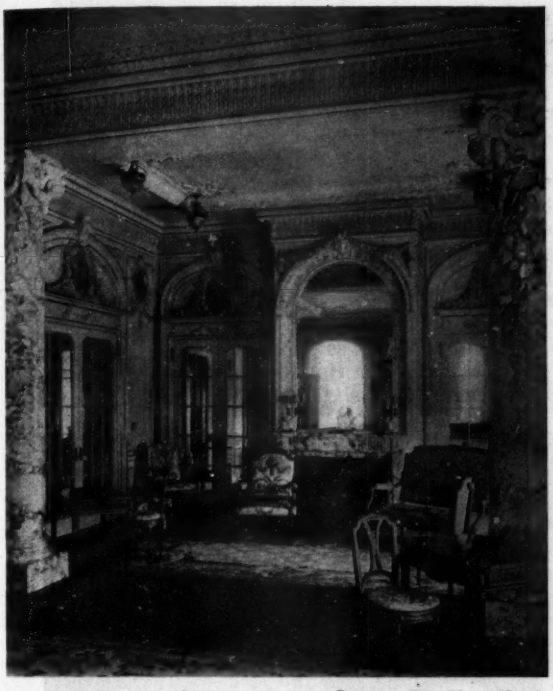
The city is strikingly easy for the stranger to find his way about in. On Manhattan Island, where the streets run east and west and the avenues north and south, all these thoroughfares are designated by numbers except in the lower part of the city and in one or two other small quarters. The system of street, avenue and building numbers is so simple that it is quickly understood and easily remembered.

It is also a convenient city to do business in. The tendency is for certain trades, professions or lines of business or industry to gather in special districts. Block after block of buildings, for example, are given over almost exclusively to representatives and showrooms of the various branches of the textile industry. In some buildings there are nothing but silks; in others, cotton or linen goods; in others, carpets and other floor coverings. There is hardly a civilized industry that has not its own district, or at least a building devoted to its use.

New York's "skyscrapers"—as its very high office-buildings are called—house thousands of persons during the working hours of the day. In these great structures may be had practically every necessity of life. Two or three stories down below the street level—or even up under the roof—may be a Turkish bath and a barber shop. On the ground floor, where the myriads hurry to and fro all day long in the broad corridors that lead to the elevators, are great bazaars where one can buy anything from toothbrushes to trunks. Usually there is a bank, and there are clothiers and hatters, booksellers and stationers, shoe shops, haberdashers, druggists—there is hardly an ordinary want that cannot be supplied without leaving the building.

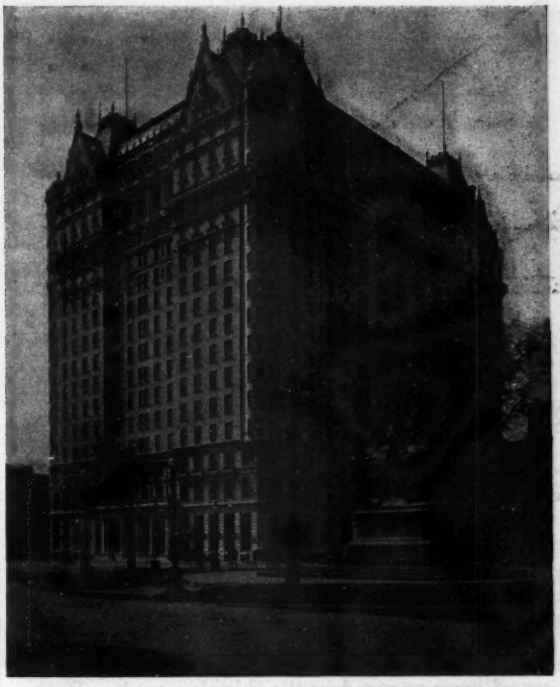
Dancing is one of the particularly attractive features of hotel life in New York City, and the utmost artistic skill is lavished upon the great ballrooms to make them exceptionally beautiful. The illustration at the right shows the grand ballroom of the Biltmore, and that at the left the foyer leading to it

Courtesy Biltmore Hotel



Courtesy The Plaza Hotel

A guest at one of the great New York hotels may do his letter-writing amid elegant surroundings

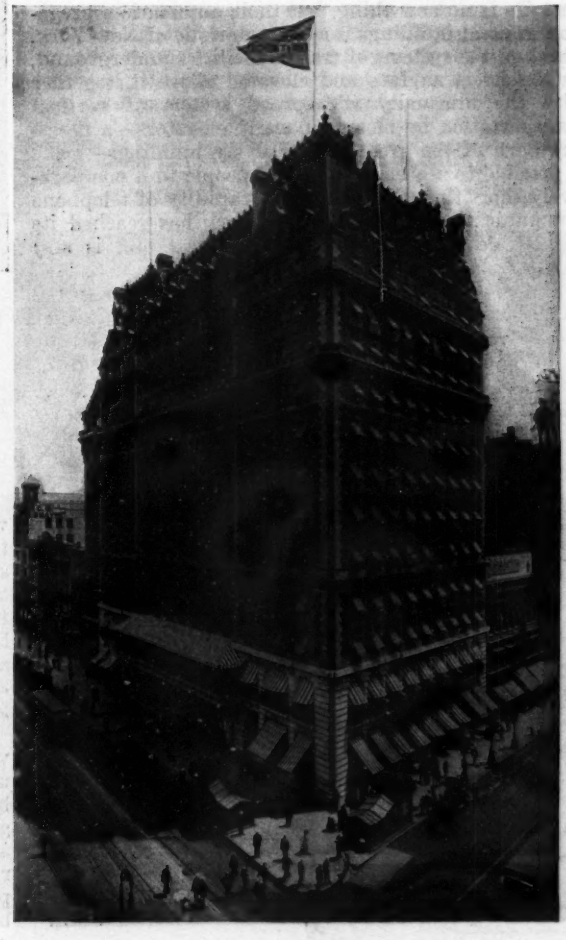


Courtesy The Plaza Hotel

The Plaza is at one of the principal entrances of Central Park, and overlooks a broad open square from which it takes its name

The Biltmore is close to the new Grand Central Terminal, one of the two great railway passenger stations in the heart of the city

Courtesy Biltmore Hotel



Where the Knickerbocker stands, at Broadway and Forty-second Street, is one of the busiest corners of the metropolis

Courtesy Knickerbocker Hotel

Courtesy Gimbel Bros.

New York's huge department stores are as famous as its skyscrapers. The illustration shows one of the largest of these palaces of trade

In the offices also the tendency of certain lines of business to gravitate to common centers is apparent. One huge structure may house half a thousand representatives of builders of industrial machinery or manufacturers of light or heavy hardware. Another building may be filled with the clerical and executive offices of firms engaged in the shipping trade. Without leaving the building a person may book passage, or charter a steamer, or engage freight room for any part of the earth. Still other edifices are the homes of huge industrial corporations, from which are directed the work of tens of thousands of men in many mills and factories throughout the country.

This grouping together of naturally related industries is no new thing, but their automatic segregation in great buildings is a characteristic of New York. This and the systems of transit facilities underground, on the street surface and elevated above it, together with the unusually widespread system of vertical transportation by means of many elevators—a necessity born of the great height of the buildings—make it possible to see many business people in a comparatively short time. The ease and rapidity of telephone communication, which in New York has reached its highest development and most general use, is still another feature.

The shop windows, particularly those along the great business thoroughfares, are a constant delight and enticement to the eye. This phase of the city makes it like a huge exposition of all the arts and industries that is constantly increasing and may be viewed year after year. On some streets, for several blocks, the display windows are filled with machinery of all kinds; in others hardware is shown in endless variety; in another part of the town there are many great drygoods establishments with tempting displays of textiles and gowns and furnishings of all sorts. The displaying of merchandise so that the passing public may enter and buy is, of course, a feature of every city, but has been developed to an unusual degree in New York.

These animals are not alive—this is merely a corner in the toy department of one of New York's great department stores

Courtesy Gimbel Bros.

The American metropolis is one of the most brilliantly lighted of cities. Its brightest spot after nightfall is a mile or so of upper Broadway. This "Great White Way," as it has been called, is famous all over the globe. In this short section of Broadway there are more than sixteen million candle power of electricity used for lighting—about one-fifth as much as in all London.

Courtesy Broadway-Park Place Company

The entrances to the big office buildings are noteworthy for their spaciousness and magnificence—like this of the Woolworth Bldg.

There are two views of the city that give an idea of its immensity. One is from an incoming steamer; the other from the top of one of its tall buildings.

The traveler gets his first sight of New York while well out at sea. Rising above the land haze he sees the pinnacles of the city's artificial mountains—the skyscrapers that crowd the southern part of Manhattan Island. As the ship draws nearer and passes through the narrow strait that leads to the great landl cked harbor, these man-made cliffs tower higher and higher. To the eyes of the imagination they seem like the supports of a titanic royal seat where the city is enthroned.

The traveler, once ashore, can step into an elevator in one of these giant edifices and soar straight upward to its topmost tower. From the railed-in balcony more than 700 feet above the earth, he can get a better idea of the geography of the city than in any other way. It lies spread out like a gigantic relief map. Letting his eyes travel around the compass he sees the broad expanse of the harbor and, beyond, the wide ocean. He sees the Island of Man-

Courtesy The New York Edison Co.

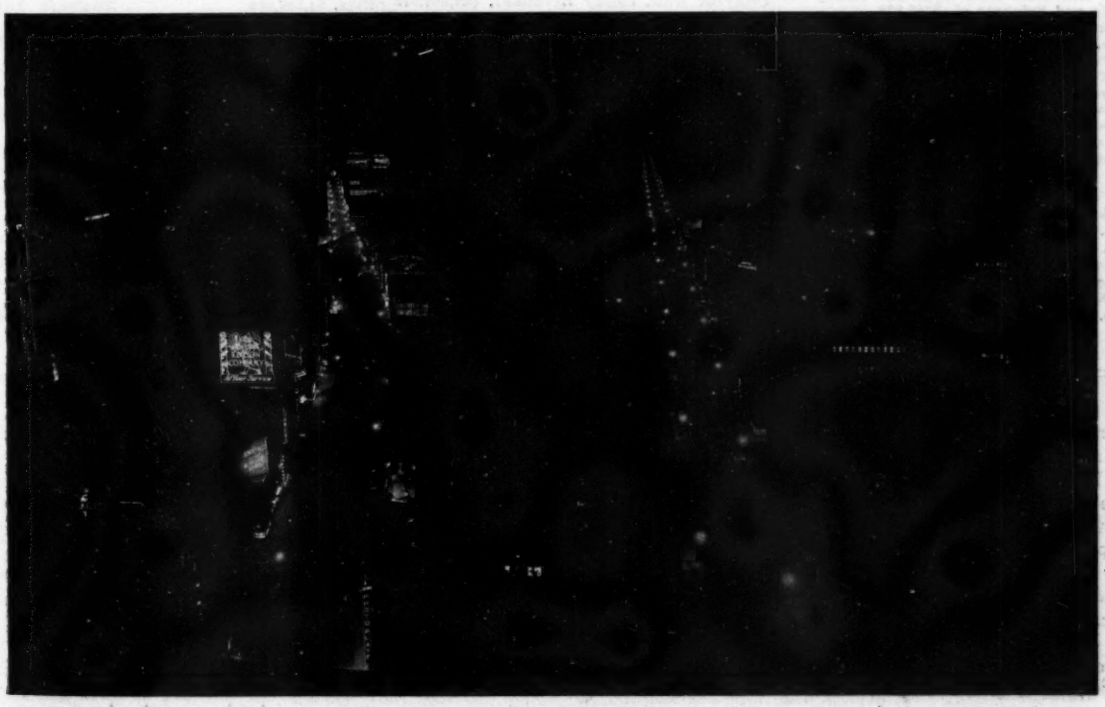
This night view of New York's "Great White Way" is looking north from Broadway and Forty-second Street, and shows how millions of electric lamps have turned great thoroughfares into rivers of light

hattan, long and narrow, the heart of the metropolis, with two mighty rivers sweeping past it to the sea, and to the northward and eastward miles of buildings whose end is beyond the horizon.

More than a score of important institutions and organizations, public, semi-public and private, have recently been organizing facilities for the entertainment and guidance of foreign buyers while in New York. It is their aim to do everything possible to make the transaction of business both easy and pleasant. DUN'S INTERNATIONAL REVIEW also extends a hearty invitation to all buyers and will be glad to put them in touch with the various organizations and with firms with which they wish to do business. To any who are in doubt as to the desirability of coming to the city we shall be very glad to give further information as to its commercial advantages or regarding its various features of general interest.

Looking south from Broadway and Forty-second Street at night the brilliantly lit streets and the long procession of lights stretch away to the vanishing point. The thoroughfare at the left is Broadway and at the right, Seventh Avenue

Courtesy The New York Edison Co.



WHAT THE UNITED STATES IS PREPARED TO BUY

Some of the More Important Commodities that Made Up the Total of $1,813,008,234 Worth of Merchandise Imported Last Year

IN the present crisis in international trade relations throughout the world not only have importers everywhere been cut off from some of their principal sources of supply, but exporters and shippers have found many of their customary channels of distribution closed to them. The great continental seaports of Hamburg, Bremen, Rotterdam, Amsterdam and Antwerp were important importing and distributing centers for many of the staples of world commerce. All of these ports are now cut off from their sources of supply, with the result that shippers who have for many years past depended upon their highly organized and efficient distributing facilities must, for the present, send their goods elsewhere, or forego marketing them altogether.

As it is of vital importance to every producing country in the world to be able to dispose of its principal products without delay, new channels of distribution must be found to replace those that have been interrupted by the war. Many of the leading bankers and mercantile houses of the United States have been engaged for several weeks past in a careful study of the situation with a view to helping other countries— and particularly those of Latin America —to dispose of their more important products without serious loss or undue delay. In some instances a market can be found by substituting direct shipments to American ports for the customary routes via continental ports. In so far as the United States is the final purchaser and consumer of such products this change will involve no very serious difficulty and will materially increase the rapidity with which such products can be placed on the market. Leading New York bankers have informed representatives of DUN'S INTERNATIONAL REVIEW that they will gladly finance direct purchases of foreign commodities for which there is a consumptive demand in the United States, or which are required as raw materials by American manufacturers.

In order, therefore, to facilitate the reorganization of distributing facilities, the accompanying table has been prepared showing many of the principal commodities imported into the United States during the fiscal year ending June 30, 1913. While it will necessarily take some time to establish connections whereby American importers can undertake to re-export some of these commodities to other countries, it is probable that this will be done on a steadily increasing scale, so that the purchases of the United States in the case of many staples for which there is a world-wide demand will probably be larger rather than smaller during the current year.

Some of the more important articles and products for which there is a market in the United States and amount of each purchased in 1913

ALUMINUM, $4,315,233
ANTIMONY ORE, $1,134,467
BEADS AND BEAD ORNAMENTS, $1,878,651
BONES, HOOFS AND HORNS, $885,893

BREADSTUFFS

Macaroni, etc., $4,913,624
Rice, $3,103,086
Rice Flour, etc., $2,813,778
Sago, Tapioca, etc., $2,187,217
BRISTLES (Sorted, Bunched or Prepared), $3,491,980
BRUSHES, $2,089,303
BUTTONS (not classed as jewelry), $1,855,843

CHEMICALS, DRUGS, DYES AND MEDICINES

Acetic Acid, $54,654
Carbolic Acid, $674,504
Oxalic Acid, $406,824
Other Acids, $686,463
Alizarin and Alizarin colors or dyes, $1,817,270
Ammonia, muriate of, $505,430
Ammonia, Sulphate of, $3,655,413
Analine Salts, $370,293
Argols or Wine Lees, $2,621,632
Arsenic and Sulphate of, $366,928
Cinchona Bark, $357,490
Quinia, Sulphate of, $562,924
Coal Tar Colors or Dyes, $7,105,284
Coal Tar Preparations or Products (Including Creosote Oil), $5,688,893
Quebracho, $2,005,770
Extracts for Dyeing or Tanning, $365,149
Fusel Oil or Amylic Alcohol, $1,183,902
Glycerine, crude, $4,251,841

GUMS

Camphor, crude, $1,007,301
Chicle, $5,282,722
Copra, Kauri and Damar, $2,519,519
Gambier or Terra Japonica, $790,081
Shellac, $3,046,919
All other, $2,160,443
Indigo, natural and artificial, $1,101,897
Iodine, crude, $739,734
Lactarene or Casein, $649,371
Licorice root, $1,806,066
Lime, Chloride of, $614,185
Lime, Citrate of, $751,318
Magnesite, calcined, $1,727,848
Opium, $2,565,965
Potash, Carbonate of, $683,745
Potash, Caustic or Hydrate of, $344,401
Potash, Cyanide, Nitrate and other salts of, $900,978
Preparations, Medicinal, $1,621,520
Soda, Nitrate of, $20,718,968
Sulphur or Brimstone, crude, $365,608
Vanilla Beans, $2,641,573
Wax, mineral, $507,656
Wax, vegetable, $1,146,077
Other Chemicals, $12,180,393
CLAYS (Common blue, china clay and others), $2,393,399
CACAO, crude, $17,389,042
COFFEE, $118,963,209
COPPER ORE, $9,444,108
COPPER MATTE AND REGULUS, $4,223,385
COPPER (pigs, ingots, bars, etc.), $44,611,735
CORK (wood or bark), $3,152,070
COTTON (raw, chiefly Egyptian), $22,987,318

DYEWOODS

Logwood, $476,916

FEATHERS AND DOWNS (Natural)

Ostrich, $6,252,298
All other (crude), $1,985,084
All other (dressed), $1,701,918
FEATHERS, FLOWERS, ETC. (Artificial), $2,722,483

FERTILIZERS

Bone Dust and Bone Ash, $801,715
Guano, $340,915
Manure Salts, $1,794,058
Potash, Muriate of, $6,782,056
Potash, Sulphate of, $1,753,485
All other Fertilizers, $3,300,833

FIBRES AND TEXTILE GRASSES (Unmanufactured)

Flax, $3,950,020
Hemp, $1,484,116
Istle, $923,104
Jute and Jute Butts, $9,280,565
Kapoc, $809,001
Manila, $12,629,693
New Zealand Flax, $917,166
Sisal Grass, $17,803,819
All other, $1,281,175

FIBRES AND TEXTILE GRASSES (Manufacturers of)

Bagging for covering cotton, $551,989
Bags of Jute, $4,268,383
Coir Yarn, $312,049
Burlaps, $37,773,846

FRUITS

Bananas, $14,484,258
Currants, $1,306,410
Dates, $660,311
Figs, $944,317
Grapes, $1,359,415
Lemons, $4,300,266
Olives, $1,896,982
Pineapples, $1,319,006

NUTS

Almonds, $3,344,658
Cocoanuts (in the shell), $1,781,377
Cocoanut meat or copra (not prepared), $1,531,821
Cream and Brazil, $688,534
Filberts, $895,483
Peanuts, $782,787
Walnuts, $3,499,981
All other, $967,161
FURS AND FUR SKINS (Undressed), $16,717,208
FURS (Dressed on the skin), $5,395,778
HORSE HAIR, $2,223,344
HAIR OF OTHER ANIMALS, $1,099,730
HUMAN HAIR, $2,530,504

The accompanying table is purposely confined to foodstuffs and raw materials for manufactures, inasmuch as imports of manufactured products into the United States come principally from the nations now engaged in war, or situated in such close proximity to the zone of hostilities as to have their manufacturing and shipping facilities curtailed as a result of mobilization and interruption of steamship traffic. The articles included in the table are for the most part imported from neutral countries, and many of them are derived almost entirely from other continents than Europe.

The table is printed primarily to assist exporters and shippers situated in any country in the world, in which there are large supplies of exportable products of any kind, to ascertain the quantity of such products that are normally purchased by the United States. In this crisis DUN'S INTERNATIONAL REVIEW will be pleased to place its services at the disposal of such exporters and shippers with a view to assisting them to get in communication with possible buyers of the lines they have to sell. No charge whatever will be made for this service and every effort will be made to bring about trade connections that will result to the mutual benefit of both buyers and sellers. A number of important and influential organizations in the United States have clearly recognized the necessity of finding a market for the staples that foreign nations have normally exported through European channels now closed by the war. These organizations will gladly co-operate to find buyers, particularly for the products of Latin-American countries, thereby creating credits against which American exporters can draw in payment for export shipments. In this manner, it is hoped, a basis may be found whereby international trade relations may be resumed in both directions—enabling countries outside of the United States to dispose of their exportable products and with the proceeds of such sales to purchase the innumerable articles that they normally require.

Exporters and shippers of any of the articles mentioned in the foregoing table who are interested in securing a market for their products in the United States may find it to their advantage to open an account with an American banking house, particularly if they are also importers of manufactured lines. By doing this their sales will create a credit balance at New York against which they and their clients can draw in payment for merchandise. This journal has already been in receipt of numerous inquiries from its foreign readers relative to the transfer of their accounts to American banks during the present crisis and the publication will be pleased to assist in every possible way all who desire to do this. To facilitate matters and avoid unnecessary correspondence, with resulting loss of time, it is desirable that inquiries on this subject be accompanied with documents indicating in detail the financial responsibility of the firm making the inquiry and the extent of its present banking connections.

In writing to DUN'S INTERNATIONAL REVIEW on this subject address all correspondence to the head office, 290 Broadway, New York, U. S. A., and state in detail the quantities, quality, etc., of the products available for export, the prices at which they are offered and such other particulars as are usually required by purchasers of the staples or articles in question.

Some of the more important articles and Products for which there is a market in the United States and amount of each purchased in 1913

HIDES AND SKINS
(Except fur, raw or uncured)

Buffalo, $2,790,009
Calf and Kip (dry), $15,092,017
Calf and Kip (green or pickled), $11,202,956
Cattle Hides (dry), $18,670,672
Cattle Hides (green or pickled), $27,628,292
Goat Skins (dry), $21,099,415
Goat Skins (green or pickled), $3,691,002
Horse Hides (dry), $2,234,581
Horse Hides (green or pickled), $941,371
Kangaroo, $719,188
Sheepskins (dry), $6,429,936
Sheepskins (green or pickled), $5,965,008
All other, $921,721
HIDE CUTTINGS (Raw), $1,767,382
HOPS, $2,852,865

INDIA RUBBER, GUTTA PERCHA AND SCRAP

Balata, $766,772
Guayule Gum, $4,345,088
Gutta-Jpolatong, $2,174,441
Gutta Percha, $167,313
India Rubber, $90,170,316
India Rubber Scrap, $3,709,238
IRON ORE, $7,035,185
IVORY (animal), $1,821,358
IVORY (vegetable), $977,525
LEAD BULLION AND BASE BULLION, $2,940,061
LEAD ORE, $360,684

LEATHER AND TANNED SKINS

Belting and Sole, $1,652,460
Calfskin (tanned), $127,735
Pianoforte and Glove Leather, $2,384,672
Skins (dressed and finished), $892,282
Upper (dressed and finished), $182,562
All other, $980,760
MANGANESE (Oxide and Ore), $2,196,661

MEAT AND DAIRY PRODUCTS

Sausage Casings, $2,476,082
Cheese, $9,185,184
MICA, $1,003,158
NICKEL ORE AND MATTE, $6,398,228

OILS

Fish and other animal, $769,290
Mineral (Crude), $7,437,227
Refined, Benzine, $1,266,689
Refined, all other, $512,946
Vegetable,
Cocoa Butter, $992,358
Coccanut, $4,183,036
Chinese nut, $2,733,884
Peanut, $820,763
Olive (crude), $407,074
Olive (edible), $6,739,178
Palm, $3,351,868
Palm Kernel, $1,868,658
Rape Seed, $779,400
Soya Bean, $635,888
Volatile or Essential, $3,826,825
All other, $1,012,660
OLEO STEARIN, $967,000

PAPER STOCK (Crude)

Rags (except woolen), $3,413,165
All other, $3,858,240

PLATINUM

Unmanufactured, $1,967,976
Ingots, Bars, Plates, etc., $3,134,761
PLUMBAGO, $1,972,177

SEEDS

Castor Beans, $985,598
Flaxseed or Linseed, $8,127,774

SHELLS

Mother-of-Pearl, $1,135,952
All other, $751,457

SILK

Raw, in skeins, $82,147,523
Waste, $2,711,605
Spun Silk or Schappe Silk Yarn, $6,383,872

SPICES

Cassia, $535,974
Ginger Root (not preserved), $399,270
Pepper, $2,852,665
All other, $2,419,237

SUGAR PRODUCTS

Molasses, $1,456,350
Beet Sugar, $4,169,523
Cane Sugar, product of Philippine Islands, (Free), $4,593,199
Cane, other, $94,700,155 (not including imports from Porto Rico and the Hawaiian Islands.)
SULPHUR ORE, $4,111,636
TEA, $17,433,688
TIN, in BLOCKS BARS, PIGS, ETC., $53,-112,594

TOBACCO

Leaf, suitable for cigar wrappers, $8,242,212
Leaf, all other, $27,676,867
Cigars and Cheroots, $4,011,370

TOYS

Dolls and parts of, $1,563,194
All other, $6,372,371
WAX (Beeswax), $253,867

WOODS

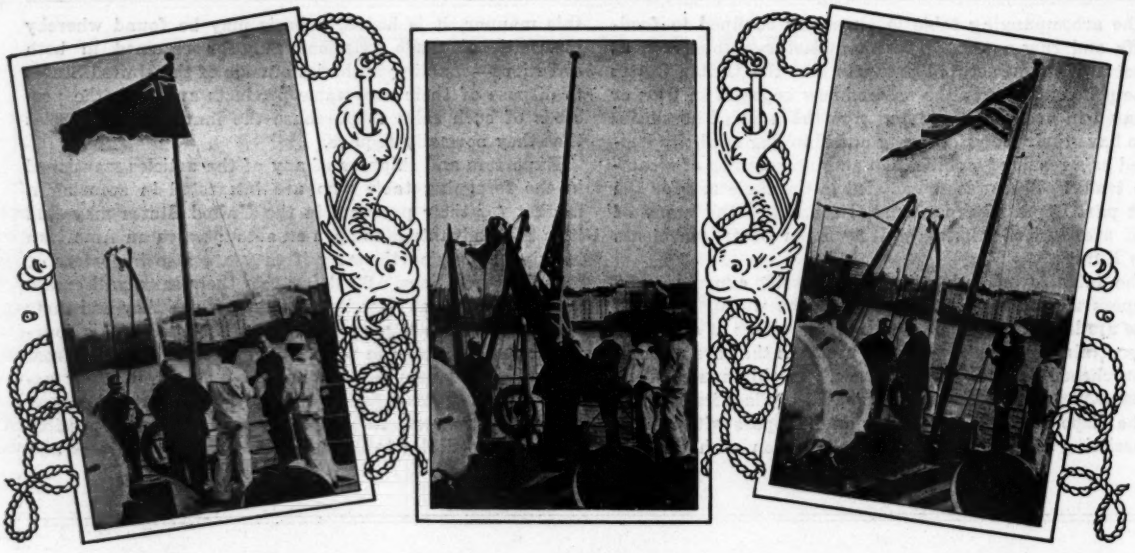
(Other than lumber and logs from Canada)
CABINET WOODS
Cedar, $1,094,048
Mahogany, $4,839,625
All other, $1,441,541
RATTANS AND REEDS, $1,040,121
CHAIR CANE OR REED, $620,893
WOOD PULP, Chemical, Unbleached (other than Canadian Fir), $8,504,238
WOOD PULP, Chemical, Bleached, $3,430,613

WOOL (Unmanufactured)

Clothing, $15,422,920
Combing, $4,266,327
Carpet, $15,890,576

ZINC

Ore and Calamine, $831,080
In Blocks or Pigs, $1,525,688



Raising the American flag on the United Fruit Company's steamer "Zacapa" on September 15th. This was the first passenger vessel to receive American registry under the Act of August 18th

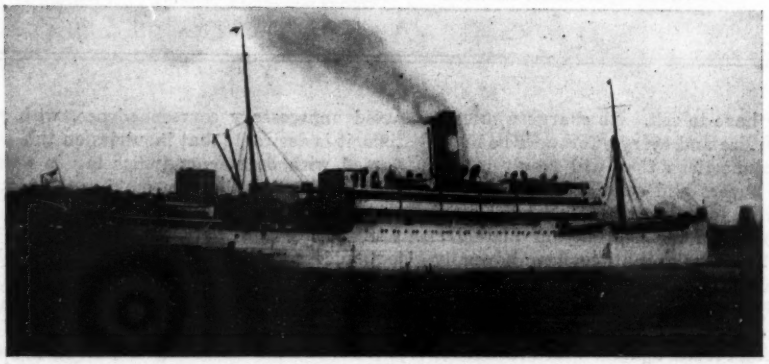
AMERICA'S NEW MERCHANT MARINE

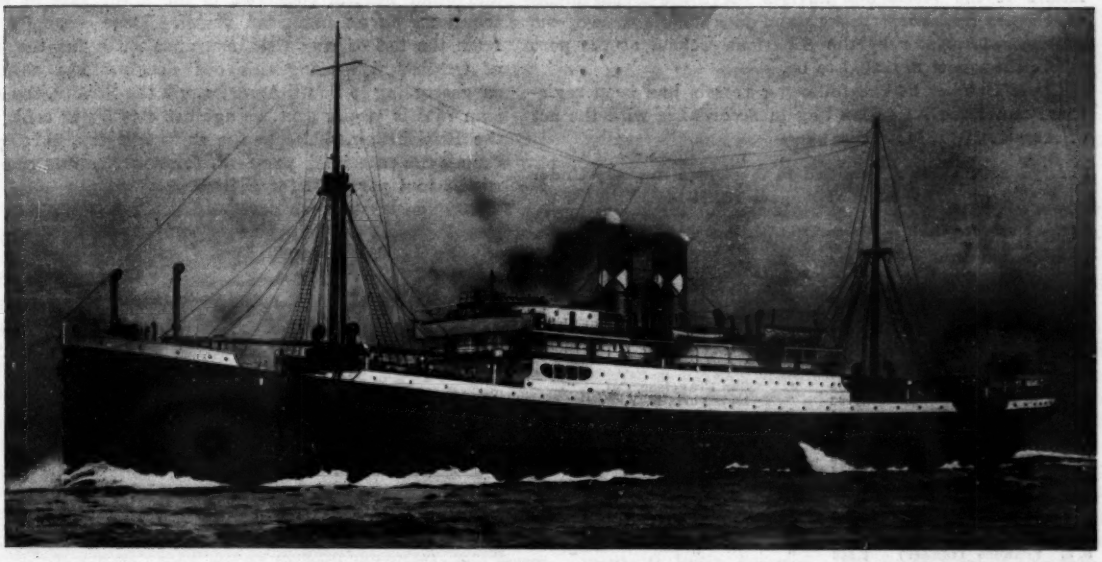
The Former Supremacy and Subsequent Decline of American-Owned Shipping in the Foreign Trade, and the Importance of Its Revival to Shippers During this Crisis

WHEN on September 15th, the United Fruit Company raised the Stars and Stripes on the steamer *Zacapa* amid the strains of the "Star-Spangled Banner," the cheering of passengers, and the salutes of boats in the harbor, the first passenger vessel had been registered under the American flag since Congress, on August 18, amended the Navigation Laws to foster the growth of an American merchant marine. This ceremony is significant in that it marks the beginning of a period which may see the regeneration of America's merchant marine and lead this country again to that preëminence in this field which it held during the first seventy-five years of its national existence. We may now look for the fulfillment of the promise given when the Red Star liner *Kroonland* replaced the red, orange, black ensign of Belgium with the Stars and Stripes on December 27, 1911, and later, on January 3, 1911, when the same ceremony took place on the *Finland*. It was believed at the time of the change of registry of the *Kroonland* and the *Finland* that if Congress would repeal our stifling navigation laws many more vessels would fly our flag. This long-desired change has finally come about through the pressure of a general European war, and the ceremony on the *Zacapa* marks a significant beginning.

The fortunes of the American merchant marine have not always been at the low ebb of recent years. In 1789 the proportion of American ships engaged in carrying the country's foreign trade was 17.5 per cent. of imports and 30 per cent. of exports, which was a very creditable showing at that early date in our national existence. But still more remarkable is the fact that within six years American-owned vessels were carrying 90 per cent. of the foreign trade. For a few years after the war of 1812 there was a slight falling off, due to the bad effects of the Embargo and Non-intercourse acts and to the blockading of our harbors, but by 1820 we were again carrying over 90 per cent. A gradual decline, starting about 1840, became very rapid after the Civil War, and by 1892 the proportion of American vessels in the foreign trade was 17 per cent. of imports and only 8 per cent. of exports. Both the closing of Southern ports during the Civil War and the destruction of American ships by Confederate cruisers were important factors in the decline of the country's merchant marine. In 1898 the percentage of imports and exports carried in American vessels was only 9.3, and in 1903 of the 423 steamships sailing out of the harbor of New York for foreign ports only 28, or about 7 per cent., carried the

The "Zacapa" of the United Fruit Company's fleet. All of the steamers of this company now fly the American flag, except Jamaica boats, which are under the Norwegian flag





The "Crofton Hall," of the New York & South America Line, which now has four fine cargo steamers of 7,000 to 8,000 tons under the American flag. These vessels are equipped with special derricks for the quick and safe handling of cargoes

American flag. No vessel carrying that flag cleared for an Asiatic, African or South American port. The record of other large port cities was equally discouraging. In 1912 only 9.4 per cent. of our foreign trade was carried in American vessels. This, in brief, was the course of events by which the American merchant marine, which was formerly in a position of maritime supremacy, declined to comparative insignificance.

In 1913 the total tonnage of the American marine used in foreign trade was only 1,017,862 tons, as compared with 19,541,206 for the United Kingdom, 4,593,095 for Germany, 2,088,065 for France, and 2,286,037 for Norway. These figures give an idea of the very insignificant place occupied by the American marine in foreign commerce. However, the tonnage in the foreign trade is only a small part of the entire merchant marine of the United States, which has 27,073 ships with a tonnage of 7,886,527. A very large proportion of this fleet is used in coastwise trading, where there were 23,415 ships employed with a total tonnage of 6,812,532 in 1913. In the northern lakes there are 3,367 vessels, aggregating 2,949,924 tons, while in the fisheries 1,397 ships are employed, with a tonnage of 56,133.

After the passage of the Act of August 18, 1914, a considerable number of foreign-built vessels came under American registry, the total up to October 24 amounting to 78 vessels, with a gross tonnage of 272,549.

Following is the complete text of H. R. 18202, entitled "An Act to provide for the admission of foreign-built ships to American registry for the foreign trade, and for other purposes," which became law August 18, 1914:

"Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the words 'not more than five years old at the time they apply for registry' in section five of the Act entitled 'An Act to provide for the opening, maintenance, protection and operation of the Panama Canal and the sanitation and government of the Canal Zone,' are hereby repealed.

"Section 2.—That the President of the United States is hereby authorized, whenever in his discretion the needs of foreign commerce may require, to suspend by order, so far and for such length of time as he may deem desirable, the provisions of law prescribing that all the watch officers of vessels of the United States registered for foreign trade shall be citizens of the United States.

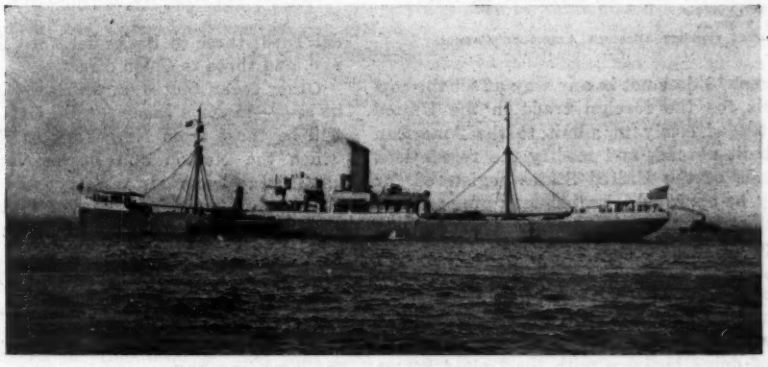
"Under like conditions, in like manner, and to like extent the President of the United States is also hereby authorized to suspend the provisions of the law requiring survey, inspection and measurement by officers of the United States of foreign-built vessels admitted to American registry under this Act.

"Section 3.—This Act shall take effect immediately."

Pursuant to this Act the Department of Commerce notified collectors of customs on August 25 that to cover American-owned ships then in foreign ports until their return to the United States for permanent registry, it had arranged with the State Department for the issue of provisional registers by Consuls. It instructed the customs collectors that when bills of sale covering such cases are presented the vendee shall be required to execute an affidavit that the transfer of the vessel is permanent and bona fide, and is not made to evade the consequences to which a ship of one of the countries at war, as such, is exposed.

When the Commissioner of Navigation is notified that this and the bill of sale have been filed, he awards signal

The S. S. "Bantu," a cargo steamer of 4,188 tons of the New York & Vancouver Line, plying between New York and British Columbia, via the Panama Canal—now under American flag



letters to the vessel and advises the State Department, which then cables instructions and data for the issue of the provisional register by the American Consul at the port where the vessel is stated to be.

Up to October 24 the following vessels had been registered under the American flag in accordance with the act of August 18, 1914:

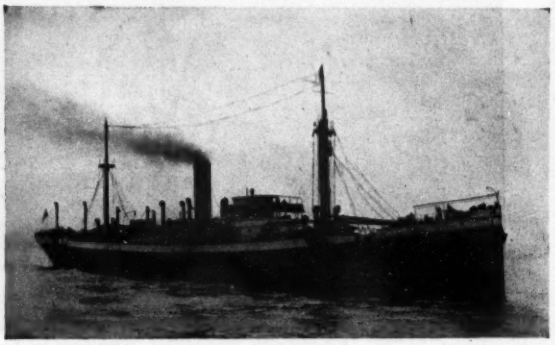
Foreign-Built Vessels Admitted to American Registry Under the Act of August 18, 1914

Rig.	Name of Vessel.	Gross.	Mat.	Home Port.	Former Nationality.
S. S.	*Oceana	7,796	Steel	New York, N. Y.	British
S. S.	†Moldegaard	2,852	"	"	"
Bark	†Windrush	1,531	"	Boston, Mass.	"
S. S.	*Tivives	5,017	"	New York, N. Y.	"
S. S.	†Trinidadian	2,450	"	Port Arthur, Tex.	"
Sch.	†Roseway	291	Wood	Mobile, Ala.	"
S. S.	†Santa Rosalia	5,409	Steel	New York, N. Y.	"
S. S.	†Kentra	4,682	"	"	"
S. S.	†Bantu	4,188	"	"	"
S. S.	*Crofton Hall	5,773	"	"	"
Bark	†Annie M. Reid	2,165	"	San Francisco, Cal.	"
S. S.	†San Francisco	5,102	"	New York, N. Y.	"
S. S.	†Buenaventura	4,881	"	"	"
S. S.	†Charlton Hall	4,749	"	"	"
S. S.	†Craster Hall	4,319	"	"	"
S. S.	†Howick Hall	4,922	"	"	"
S. S.	*Zacapa	5,012	"	"	"
S. S.	*Cartago	4,937	"	"	"
S. S.	*Sixaola	5,017	"	"	"
S. S.	†Brabant (tanker)	2,773	"	Port Arthur, Tex.	Belgian
S. S.	‡†Foxton Hall	4,246	"	New York, N. Y.	British
S. S.	†Limon	3,297	"	"	"
S. S.	†Panuco (tanker)	2,556	"	"	"
S. S.	†Pinar del Rio	2,504	"	"	"
Sch.	†C. W. Mills	371	Wood	Mobile, Ala.	"
S. S.	Suriname	3,274	Steel	New York, N. Y.	"
S. S.	†Brindilla (tanker)	4,170	"	"	German
S. S.	*Turrialba	4,952	"	"	British
S. S.	*Metapan	5,011	"	"	"
S. S.	*Heredia	4,943	"	"	"
S. S.	†Esparta	3,297	"	"	"
Ship	†Avon	1,573	Iron	Boston, Mass.	"
S. S.	*Abangarez	4,954	Steel	New York, N. Y.	"
Bkn.	†Everett G. Griggs	2,577	Iron	Seattle, Wash.	"
S. S.	*Coppename	3,191	Steel	New York, N. Y.	"
Bark	†Snowdon	1,111	Iron	Boston, Mass.	"
Ship	†Hilston	2,087	"	Mobile, Ala.	"
S. S.	†Platuria (tanker)	3,445	Steel	New York, N. Y.	German
S. S.	†C. A. Canfield (tkr.)	6,350	"	Los Angeles, Cal.	British
S. S.	*Parismina	4,937	"	New York, N. Y.	"
S. S.	*Almirante	5,010	"	"	"
S. S.	*Atenas	4,961	"	"	"
S. S.	†San Jose	3,296	"	"	"
S. S.	†Montano	2,730	"	"	German
S. S.	†Caloria	4,095	"	"	"
Sch.	†Louise M. Richard	441	Wood	Gulfport, Miss.	British
S. S.	Marowijne	3,192	Steel	New York, N. Y.	"
S. S.	Saramacca	3,284	"	"	"
S. S.	†Norman Bridge	4,288	"	Los Angeles, Cal.	"
S. S.	*Santa Marta	5,013	"	New York, N. Y.	"
S. S.	*Carrillo	5,012	"	"	"
S. S.	*Pastores	7,781	"	"	"
S. S.	*Calamares	7,782	"	"	"
S. S.	*Tenadores	7,782	"	"	"
Ship	†Brynhilda	1,502	Iron	Boston, Mass.	"
Ship	†Pass of Balmaha	1,571	Steel	"	"
Ship	†Rhine	1,690	Iron	"	"
S. S.	Orleanian	2,293	"	New York, N. Y.	"
Bge.	†Glenlui	1,934	"	Port Arthur, Tex.	Belgian
Bge.	†France Marie	1,994	Steel	"	"
S. S.	†Wico (tanker)	2,748	"	New York, N. Y.	German
S. S.	§Dochra	4,309	"	"	British
S. S.	†Llama (tanker)	3,189	"	"	German
S. S.	†Edward L. Doheny (tanker)	6,170	"	Los Angeles, Cal.	British
S. S.	†Sacramento	5,692	"	San Francisco	German
Bge.	¶†Tuxpan	869	Iron	Port Arthur, Tex.	Belgian
Bge.	¶†Panuco	646	Steel	"	"
S. S.	†Herbert G. Wylie (tanker)	4,292	"	Los Angeles, Cal.	British
Bkn.	†Skoda	744	Wood	Mobile, Ala.	"
Bark	†Pilgrim	1,629	Steel	Boston, Mass.	"
Ship	†Timandra	1,579	Iron	"	"
S. S.	†Santa Clara	2,584	Steel	New York, N. Y.	"
S. S.	§Javary	1,249	"	"	"
S. S.	Charles E. Harwood	3,178	"	Los Angeles, Cal.	"
Bark	†Anna Maria D'Abundo	954	Wood	Mobile, Ala.	"
S.S.	Greenbrier	3,332	Steel	New York, N. Y.	"
Sch.	†W. H. Baxter	399	Wood	Mobile, Ala.	"
Bkn.	†Stranger	622	"	"	"

Total to October 24: 78 Vessels; 272,549 Gross Tons.
‡ Burned at Watling Island, Bahamas, September 23, 1914.
* Indicates passenger vessels.
† Indicates freight vessels.
§ Indicates provisional registry through American Consul.
¶ Schooner rigged.

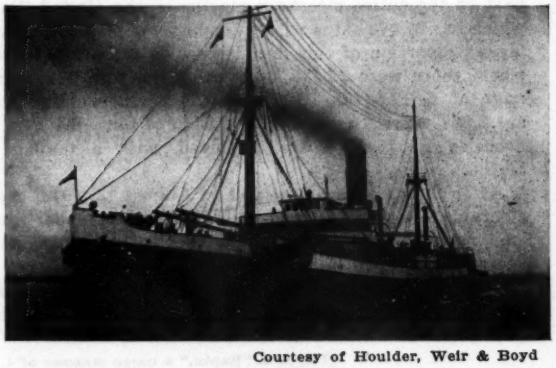
The law of August 18 does not in any way affect the cost of building vessels for the foreign trade in the United States, but is intended solely to admit to the American registry vessels built abroad, and modify the regulations under which vessels of the United States registered for foreign trade may be operated. Its primary purpose was to permit the registry under the American flag of the foreign-built ships already owned in the United States and aggregating, according to one estimate, more than 1,000,000 tons gross register.

The most distinct advantage which an American merchant marine now gives to foreign importers and exporters desirous of doing business with the United States and other neutral countries is the lower rate of marine insurance on an American vessel. Some examples taken from the list of war risk insurance rates for the middle of October will bring this out clearly. For ships and cargoes going to South America, via the Straits, the American rate is ¾ per cent. as against 4 to 5 per cent. under the British flag, while to the same country, through the Canal, the rate is ¾ per cent. for American as compared with 3 to 4 per cent. for British.



The S. S. "Kentra," of the New York & Vancouver Line, which will send a boat a month through the Panama Canal each way

The advantages of this expansion of the American merchant marine at the present time will be felt by foreign importers and exporters as well as by shippers in the United States, inasmuch as it increases very materially the available tonnage under a neutral flag. For example, of the 90 vessels operated by the United Fruit Co., 25 are owned outright and will be placed under the American flag, although all of these have not yet been reported as having been granted American registry, while the balance fly the Norwegian flag. Of the 25 boats under American registry, three go to Havana, Colón and Bocas del Toro; three to Jamaica, Panama and Colombia; four run to Belize, Puerto Barrios, Puerto Cortez and Tela; three to Havana, Costa Rica and Jamaica; three to Colón, Port Limón and Bocas del Toro; three to Bocas del Toro, Port Limón and Santiago, and three to Colón direct.



Courtesy of Houlder, Weir & Boyd

The S. S. "San Francisco," of the New York & Vancouver Line. This line was organized by the United States Steel Products Co.

Other ocean routes on which the American flag will now be seen—in some cases for the first time in many years—will be those from New York to River Plate ports, over which the Norton and Barber lines will operate boats admitted to American registry; and New York to the West Coast of South America (via Panama), over which the New York and South America Line will operate four vessels admitted to American registry. There are also several ships owned by W. R. Grace & Co. The Standard Oil Company and the Texas Oil Company have already secured American registry for some of their vessels and will eventually operate considerable fleets of tank steamers under the American flag.

FINANCING LATIN-AMERICAN TRADE

The Most Important Problem Now Confronting the Business Interests of the United States and Latin America and the Steps Thus Far Taken for Its Solution

ON the outbreak of the great European war the swiftness with which one great nation after another was swept into the ranks of the belligerents, and the colossal scale of the operations on land and sea, caused a temporary paralysis of the entire machinery of international trade around the world. The first duty of the business leaders in every community was to minimize as far as possible the extent of the economic disaster by preventing a financial panic. The stock exchanges and most of the principal commodity exchanges closed. Bankers everywhere took steps to prevent disastrous runs by their depositors and to safeguard the vast interests entrusted to their care. Governments promptly proclaimed moratoria extending the maturity of commercial obligations, or took other appropriate steps to coöperate with the business interests of their respective countries in restoring confidence. In some countries business conditions had, from various causes, been unsatisfactory prior to the war. In these the situation was for a time acute, but at present confidence has everywhere been sufficiently restored to enable business men to face the unusual conditions created by the conflict with renewed courage.

For a brief period the shipping facilities of the commercial world were seriously disorganized, freight and war risk insurance rates rose to prohibitive figures, and even international mails were greatly delayed. There has been a steady improvement in the shipping situation, however, and the volume of shipping now available at practically all ports is fully adequate to take care of the traffic in sight, regular sailings have been resumed on most of the great ocean routes and freight rates are gradually approaching normal levels. The addition of 78 vessels, aggregating 272,549 gross tons, to American registry under the law of August 18, 1914, has increased by that amount the volume of shipping under neutral flags, greatly improving the situation in that respect on certain important routes—notably those from New York and New Orleans to points in the Caribbean, to the East Coast of Central America and from New York to Pacific ports via the Panama Canal.

It soon became apparent that it was not lack of shipping facilities that was retarding the resumption of trade relations between neutral countries, and particularly between those in the western hemisphere, but the extraordinary difficulty of financing shipments. The United States quickly demonstrated that its financial position was sufficiently strong to take care of all the requirements of its domestic commerce and its import trade, but it became increasingly evident that its sister republics to the south were not equally fortunate. Every one of these was suddenly confronted with an enormous shrinkage in its buying power, owing to the loss of the normal European markets for its staple export commodities. The commodities thus affected were not the same for all countries, but the situation was identical—the war had cut off the usual outlet and each country found itself unable to sell the major part of its products. Prices of all the Latin-American staples fell in consequence, exactly as the price of raw cotton has fallen in this country. Each country found itself with these staples on its hands—for the most part foodstuffs and crude raw materials for various manufactures—but no money and no means of converting the staples into money.

From this it followed that the mechanism of international exchange, by means of which these countries in normal times were accustomed to pay for their imports, immediately broke down. For more than a century, or ever since the various Spanish-American countries ceased to be colonial dependencies of Spain, it has been customary to make export shipments from these countries and their great sister republic of Brazil the basis for credit balances at London. The reason for this was the fact that such balances, being in pounds sterling, could be drawn against to settle accounts for merchandise purchased from any country in the world—the pound sterling being, as Mr. John E. Gardin has aptly expressed it, "the common denominator of international exchange." In recent years there has been a growing tendency to create similar credit balances at New York, but these have been smaller than those at London, have been made in favor of only a few countries, and have usually been available as a basis for drafts upon a relatively small number of concerns. Direct exchange between the United States and Latin America upon the basis of the gold dollar as the standard unit of value has, therefore, been restricted to a comparatively small part of our transactions with those countries, and the customary procedure has always been the triangular one by means of which Latin America drew against balances at London for whatever it sold to the United States, and this country drew against London for its shipments to Latin America. The breakdown of this triangular exchange as a result of the war affords an opportunity to attempt the substitute of the dollar in place of the pound sterling as the basis of exchange between the United States and Latin America, and a straight line from New York to each Latin-American capital as the exchange route in place of the traditional triangle via London.

Obviously, this is merely an opportunity—a possibility of the future, not a reality of the present. If the war proves to be a short one, as every American devoutly hopes that it may, the displacement of the roundabout pound sterling exchange route by the direct dollar exchange route will be at best only partial, and may prove to be only temporary. On the other hand, if the war should be protracted—as many of the leading authorities among the principal belligerents appear to expect—the advantages to all parties concerned will be so great that every effort will no doubt be made to establish the dollar as a new "common denominator" in Pan-American exchange. This will not mean doing away with sterling exchange, or attempting in any sense to do so, but will be simply a concerted effort on the part of the various countries of North and South America to provide a new exchange channel to supplement that of London, and to furnish a medium for continuing business between these countries in emergencies like the present when London exchange is disorganized.

Since the outbreak of the war American manufacturers, bankers and transportation interests have been studying the Latin-American trade situation more carefully than ever before. The most important and constructive report on the subject yet published is the one prepared by the Latin-American Trade Committee of the National Foreign Trade Council appointed by the Honorable W. C. Redfield, Secretary of Commerce, early in September. This report was issued October 19.* Its important constructive recommendations relative to the financing of Latin-American trade may be summarized by the following extracts:

> Even before the war our export trade to all Latin America, and notably South America, had begun to decrease on account of the prevailing financial stringency. Our imports, however, increased in value, and the trade balance adverse to the United States for the fiscal year 1913-14 greatly exceeded that of 1912-13 both for all Latin America and for South America alone.
>
> Since the balance of our trade with South America is heavily against the United States, there should be exchange facilities which would enable our exporters to obtain payment from balances created in New York in settlement for goods imported into this country from South America.
>
> Such balances, however, are not maintained in this country.
>
> Our exports to, and imports from, Latin America are shipped direct. They are, however, (almost exclusively in South American

*Copies of this report can be obtained by addressing the Secretary of the Council, Mr. Robert H. Patchin, 71 Broadway, New York City.

trade, and largely in Central American trade) paid for in sterling bills of exchange.

United States exporters have, in the past, converted their dollars into sterling at the rate of the day, drawing against their South American customers at 90 days sight, payable in 90 days bills on London. Importers have accepted 90 days sterling bills, which they have liquidated a the current rate of exchange. This has necessitated the conversion of dollars into sterling in the United States, and a re-conversion in South America from sterling into the currency of the buying country.

Thus, although the balance of the South American trade of the United States has been increasingly heavy against this country, we do not make settlement direct. We have been obliged, either by the shipment of gold or goods, to settle this adverse balance by remitting to England either gold or goods, to meet interest charges on the South American debt, and to pay for goods purchased in Europe by the South American countries.

NEW CREDIT MACHINERY NEEDED

Old methods may no longer be serviceable in the situation which will result from the readjustment following the war. It should now be possible indeed, in the mutual interest of the Latin-American republics and ourselves, to create new credit machinery to perform the functions of the old, and which will at the same time rid us, at least partially, of a dependence upon the London credits and European financial markets which, though essential in the past, has proved to be seriously embarrassing.

Whenever there is a great disturbance of the world's finances, American exporters and importers in South American trade are injured, because of their dependence on London. *This has happened four times in twenty-five years.*

So long as South America must meet interest settlements in London by shipment of goods to the United States, under the old three-cornered system, our South American trade must, to a certain degree, depend upon London exchange.

But in view of the facts above mentioned, the need for independence, emphasized by the present situation, should be recognized. An attempt should now be made to evolve some plan whereby we might take advantage of our large direct trade with Latin America to make a market for bills drawn in dollars, and establish a direct exchange, not with the view to eliminating sterling credits now or later, but in order to provide an exchange channel which will supplement, offset or compete with London, and be available in an emergency when London exchange is disorganized.

The maintenance of exchange relations depends on a credit machinery and reciprocal balances. This machinery will partially be provided under the Federal Reserve Act, which permits American banks to open branches abroad and permits a rediscount in this country of commercial paper, based on shipments of commodities in foreign trade. These steps, however, have not yet been effected, and the installation of this machinery may require considerable time.

The committee, however, believes that the extension of credits might be facilitated and some relief afforded, pending the establishment of the Federal Reserve Banks if, in addition to permitting national banks which have signified their intention to enter the Reserve Associations, to accept commercial paper, action be taken by the Federal Reserve Board to make immediately effective the rediscount provision of the new banking system thus assuring early establishment of a discount market.

The committee, while appreciating the necessity of conserving the banking resources of this country for the protection of our domestic situation, nevertheless believes that the *cessation or curtailment of our trade with Latin America will in itself be highly injurious to American industry*, just as we believe that *the extension of this trade would make for the prosperity of the country at large*, as well as of those directly interested. It therefore expresses the hope that American banking institutions may be induced to meet the present emergency, not by tentative and inadequate measures, but by extending accommodation sufficient at least to assure the maintenance of our already established trade.

The committee summarizes the results of its investigations by stating that it believes that the present disorganization of the trade of the United States with Latin America may best be remedied and the trade placed on a permanently satisfactory basis by (1) the establishment of a dollar exchange, (2) the perfection of our selling machinery. The establishment of dollar exchange, it observes, can be brought about as follows:

(*a*) By the ultimate creation of a discount market.

(*b*) Pending the establishment of a discount market, by the extension of adequate accommodation by banking institutions, and the establishment of reciprocal balances in the United States and in Latin-America for financing Latin-American trade.

In the general introduction to its report the committee remarks that "In a properly comprehensive report the trade of the United States with each of the Latin-American republics should be separately considered. It is realized that in each case the problem is different and demands an individual solution."

This view is shared by all who have made any extended study of the trade relations between the United States and the Latin-American countries, and is particularly applicable to the intricate subject of the financing of that trade. While the 20 Latin-American republics of the Western Hemisphere possess many characteristics in common, nothing is more delusive than generalizations about them. Each has its own individuality, and its economic and financial conditions are governed by factors that must be clearly understood and their influence determined by reference to its past history. It seems to be almost axiomatic in the opinion of many writers to assume that all of the leading banking institutions in Latin-America are European, but this side of the Panama Canal the majority of them are American or Canadian. Similarly, many authorities speak of the external invested capital in Latin America as being principally English. In Central America, Mexico, Cuba and Porto Rico it is principally American. Again, numerous speakers and writers allude to the lack of accurate credit information regarding business houses in Latin-America, apparently in ignorance of the fact that there are more detailed credit reports regarding Latin-American mercantile houses on file at New York in the offices of R. G. DUN & Co., The Mercantile Agency, than in any other city in the world.

In short, what is needed as a preliminary to any study of the financing of Latin-American trade, is a detailed analysis of the fundamental factors that affect the liquidation of mercantile accounts between the United States and each of the Latin-American republics at the present time. In general it may be stated at the outset that if the United States is to sell more largely to these countries as a result of the situation created by the war it must first buy more largely from them. It must buy more of their export commodities—which are for the most part raw materials—and it should, if possible buy some of their securities, thus taking the place of Europe for the time being in assisting them to continue to develop their resources and their transportation and industrial facilities. It must find some way of aiding them to move and market their current crops. In so far as this country can thus lend a helping hand to its sister republics to the south will their prosperity return and their buying power be restored.

It is gratifying to be able to report, as this issue of DUN'S INTERNATIONAL REVIEW is going to press, that the export returns at the New York Custom House indicate that already a good beginning has been made toward the resumption of shipments to Latin America.

The financing of Latin-American trade is unquestionably the most important economic problem arising from the war that now confronts the business men of the United States and the various Latin-American countries. As the United States is by far the largest neutral buyer of Latin-American products it offers the most advantageous market available in which to dispose of them at the present time. This article, together with the one on pages 74-75 of this issue of DUN'S INTERNATIONAL REVIEW, entitled "What the United States is Prepared to Buy," also appear in the Spanish edition and the editors of both editions will be pleased to receive communications from our readers abroad—and especially from those in Latin-American countries—relative to this important subject. Letters containing important suggestions or information will be brought to the attention of the leading organizations in the United States who are now studying the subject.

An invitation is also extended to readers throughout the world who find that international trade in their locality has been interrupted or disarranged in consequence of the war to inform the editors of this publication regarding the situation. While Latin-American needs have been somewhat emphasized in this article, as being perhaps more urgent, there is no desire whatever to discriminate as between different countries. In so far as it is possible for the business interests of the United States to lend a helping hand to the mercantile community in other lands—and especially in the West Indies, where conditions in many respects resemble those in Latin America—the editors of the REVIEW will be pleased to coöperate toward making the situation known.

A portion of the Amoskeag Mills, Manchester, N. H., employing 15,500 hands, and consuming 50,000,000 pounds of cotton and 15,300,000 pounds of wool annually in weaving 145,950 miles of cloth

AMERICAN COTTON MILLS AND THEIR PRODUCTS

Cotton Fabrics of Every Marketable Variety are Made in One or Another of the 400 Great Establishments Devoted to this Industry

Illustrated with Photos Loaned by Amoskeag Manufacturing Company

THE United States always has an abundance of raw cotton. This year it has more than an abundance. The growing crop probably will be in excess of 15,000,000 bales. Under ordinary circumstances about half of this would be exported for manufacture and consumption in other countries. But at present the cotton mills of Continental Europe are idle, while in England only about 25 per cent. of the mills are in operation. Outside of Japan, the United States is the only large cotton manufacturing country in the world where the industry has not been disorganized by war.

That America can supply the world's needs in cotton fabrics is beyond question. Its facilities are so vast that it can do so with the utmost promptness and efficiency. Mills better equipped, mechanically and in every way, cannot be found anywhere. They are prepared to make any kind of cloth that anyone wants to buy. They are making every weave successfully for every market. Their supply of raw cotton is grown almost at their very doors. It does not have to be transported over seas to be manufactured and then be shipped other thousands of miles to the consumers. From the American mill the product goes straight to its destination. That means a great saving in time and money, of which the foreign consumer gets the benefit.

Cotton goods made in America have found a ready and permanent sale in every market on the globe that they have entered. One reason for this is that no fabrics are better made. The American cottons are sold on their intrinsic merits. There are mills in the United States, for instance, the quality of whose product is so high that their orders, year in and year out, are far in excess of their production. The outputs have to be apportioned pro rata among the buyers.

The two great mill districts of the United States are contiguous to the Atlantic seaboard—one in the North, in the New England States; the other in the South, centering in the Carolinas. The northern mills, as a rule, specialize on the finer weaves; those in the South on the coarser fabrics. The latter, however, are gradually turning to a finer quality of goods. The development of these southern mills, in size, perfection of machinery and the skill of their employés has been especially noteworthy of late years. Owing partly to the grade of their product their annual consumption of raw cotton exceeds that of the northern mills.

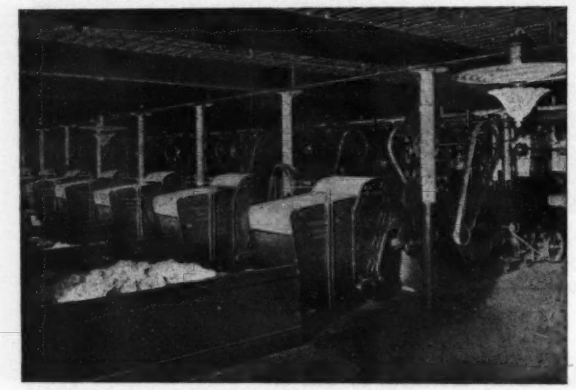
In the number of spindles—31,520,000, or 22.8 per cent. of the world's supply—the United States ranks second only to Great Britain, whose percentage is 40.3. Prior to 1890 exports of American cotton goods only once exceeded $10,000,000 in value. In the next decade these exports more than doubled, the total amounting to $24,000,000 by 1900. By 1910 they exceeded $33,000,000. In the last four years the expansion has been greater than in any previous decade, the total, June 30, 1913, aggregating $53,743,977. Great as this is, however, it is only about 4.5 per cent. of the world's trade in cotton goods. The countries at war, or within the war zone, have been supplying 87.3 per cent. of the world's consumption. Now the world will have to look to the United States for a much larger proportion of its needs.

This expansion of America's cotton manufacturing and export trade has been won in the face of keen competition. The margin between the price of a pound of raw cotton and that of a pound of goods, whether yarn or cloth, is so small that advantage has to be taken of every mechanical device, of rising or falling markets in the raw material, of everything, in fact, which tends to decrease the cost of production and to enhance the quality of the product.

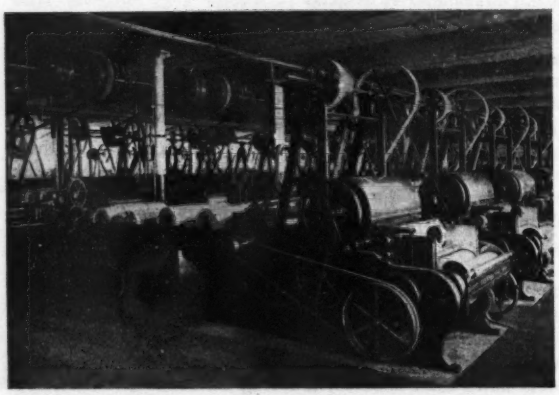
An overwhelming proportion of the manufactures of cotton consumed in the United States and other countries consists of plain cloth woven from coarse or medium yarns.

The Silver Lake Mills, at Newtonville, Mass., where braided cordage, such as rope, sash cord, railroad bell-cord, waterproofed trolley cord, clothesline, etc., are made and shipped to all parts of the world

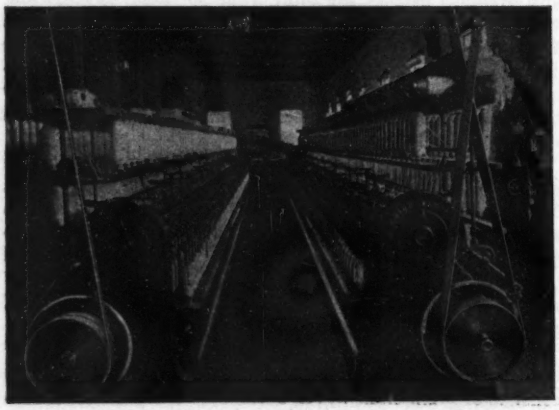
Courtesy Whittier Mills Company



Opener pickers



Finisher pickers



Roving frames

Cloth room

Seldom have the American manufacturers fallen short of supplying the full demand for these goods, and then only when the crop has fallen short. This year, with the crop above the average, they are in an especially favorable position to fill orders promptly from all the markets of the world.

Generally speaking, the cotton mills of the United States may be divided into two classes: Those producing "cotton goods," including mills engaged in the spinning of cotton or in the weaving of piece goods, or in both these processes; and those producing "cotton small wares," including establishments manufacturing narrow fabrics, such as tapes, webbing and mill banding, braids, shoe and corset laces and similar goods. The first group is by far the larger, having more than 1,200 establishments and about 400,000 employés, as compared with about one-tenth that number in the second.

Plain cloths for printing or converting comprise by far the most important class of woven goods, as measured by quantity. Brown and bleached sheetings and shirtings rank second, followed by ginghams, fancy woven fabrics, twills and sateens, and napped fabrics, in the order named. The production of each of these classes of cloths was more than 300,000,000 square yards in 1909.

The most important products of the industry in the United States, other than woven fabrics, are yarns, thread and cotton waste. Much of the yarn made by cotton mills is sold to hosiery and knit goods factories. Of the secondary products cordage and twine are the most important, the annual output averaging about 25,000,000 pounds.

As in other countries, different regions or States of the United States specialize on different grades or classes of cotton manufactures. The State of Massachusetts produces a large output of plain cloths for printing or converting, followed by the Carolinas, Rhode Island, New York and Connecticut. South Carolina is the largest producer of sheetings and shirtings.

Twills and sateens, whose manufacture involves fine spinning and complicated weaving, are produced, for the most part, in the northern States, such as Massachusetts and Rhode Island. The same is true of the production of fancy woven fabrics. The manufacture of this class of goods, however, has largely increased in the southern States, especially in Georgia, North Carolina and South Carolina. Massachusetts and North Carolina are the principal producers of ginghams, and Georgia and Massachusetts of duck. South Carolina and Georgia lead in the production of drills, and North Carolina and Massachusetts in ticks, denims and stripes. Georgia and Pennsylvania excel in cottonades, and Massachusetts, New Hampshire and North Carolina are the leading States in the manufacture of napped fabrics. Bags and bagging are specialties of South Carolina and Maine, and the production of tape and webbing is almost exclusively confined to Pennsylvania, Rhode Island and Massachusetts. North Carolina and Massachusetts lead in yarn, and in the production of thread or sewing cotton, Massachusetts, New Jersey, Connecticut and Rhode Island are the leading States.

In an article of this nature it is obviously quite impossible to discuss every phase of the cotton goods industry. The demand varies widely in different markets, according to the climate, the purposes for which the material is to be used, the buying power of the population, and a hundred other factors. If buyers reading this article desire further information or wish to be placed in touch with American mills, it is suggested that they address a letter to the Service Department of DUN'S INTERNATIONAL REVIEW, New York City, which will use its best efforts to answer their questions or meet their requirements. It is desirable that the inquirer state his needs specifically, if possible, and always as fully and clearly as may be.

The advantages that the United States offers to the foreign buyer of cotton goods are many and varied. They are especially enhanced at this time when this great manufacturing nation, at peace with the world, with abundant

crops and incalculable facilities for transforming raw materials into manufactured products, is prepared to serve its customers promptly and well with the desire of establishing permanent trade relations wherever they do not at present exist.

The products of American cotton mills have gained and held their supremacy in the great markets of the world by sheer merit. Quality never has been sacrificed to price. Standards that were set half a century ago have been maintained or advanced, even in the face of the sharpest competition. There are many instances of this, but they are so similar that one or two that are typical will suffice to emphasize this point.

The Red Sea district runs from the Suez Canal to the Indian Ocean. It takes in Arabia in Asia and the Sudan, Italian Eritrea, and French, British and Italian Somaliland in Africa. It is one of the most important markets for cotton goods in the entire world. The cotton goods trade of this vast region aggregates more than $10,000,000 annually. The demand there has always been for pure-sized cloths of good quality. Despite persistent efforts on the part of European manufacturers, there is little call for the heavily weighted, cheaper goods so widely sold in other parts of the Near East.

American gray goods were the first in the field in this Red Sea district. Their supremacy there is due somewhat to this, but more to their superior quality. The "pure-sized" goods made in the United States also lend themselves more readily to dyeing than other goods. This is an important factor, particularly in the Yemen, the great southern province of Arabia. In that section much of the gray goods imported is dyed locally in indigo shades. It is claimed that American goods have proven more satisfactory than any other in this respect.

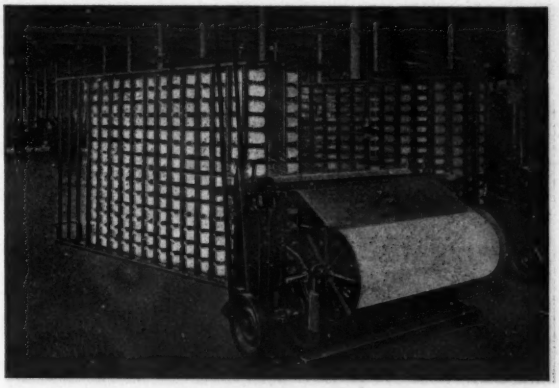
The efforts of European manufacturers to break down the supremacy of American cotton goods in the Red Sea markets were rather successful for a time, but the native buyers could not be induced permanently to accept an inferior cloth even at a reduction in price. Of late, however, European mills have set about improving the quality of their goods and endeavoring to produce a gray sheeting as nearly as possible like the American article.

This preference for American goods is all the more remarkable in view of the fact that, on account of close competition, retail dealers in the Red Sea district usually have a very small margin of profit between the wholesale price and the price at which they sell. Often they are content with 5 per cent., and sometimes not much over 2 per cent. Yet the yearly turnover is so large that this small gain becomes considerable in the aggregate.

American cotton goods also predominate in Abyssinia, nearly three-fourths of whose supply comes from the United States. In certain parts of the interior of Abyssinia, owing largely to their unvarying quality, they are used as a means of exchange in place of coins. In this market, also, English and Continental manufacturers were forced to produce a grade of pure-sized goods before they could compete with the American product.

In East Africa, also, American gray cotton goods were introduced many years ago. They are everywhere called "Americani," although that term has now come to be applied to gray goods of all kinds, no matter from what country they come. But the genuine "Americani" is so well and favorably known throughout that vast region that the native prefers them to all others, and is willing to pay a slightly higher price for them. Such instances could be multiplied indefinitely.

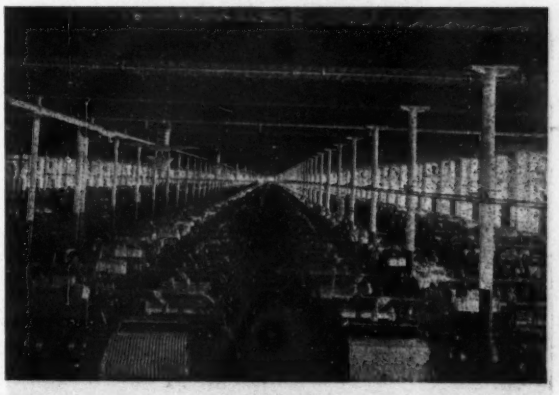
Cotton is the silver of textiles. Silver is "the pale and common drudge 'twixt man and man" and buys most of the cotton fabrics that clothe those who do the world's drudgery. This vast consuming class may be unlearned in many things, but—black and white, yellow and brown—they are shrewd judges of cotton goods. With them the superior quality of American weaves is not only a tradition, but an everyday fact that impresses itself on each generation of buyers. Their confidence in the genuine "Americani" goods never has been shaken.



Warping cotton

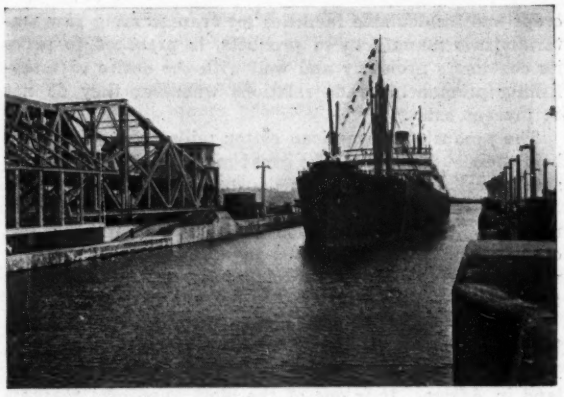
Spinning room

Card room



Weave room

Opening of the Panama Canal: S. S. "Ancon" crossing the old French canal—note the comparative width of the two waterways



The "Ancon" at the entrance of Gatun Lake on her historic trip through the Canal at its opening last August

THE IMPROVING SHIPPING SITUATION

Steady Progress Being Made Toward the Resumption of Steamship Services Between American Ports and all Parts of the World

Illustrated by Photos showing the S.S. Ancon making her Opening Voyage through the Panama Canal, August 15, reproduced by Courtesy of the Panama Railroad Company

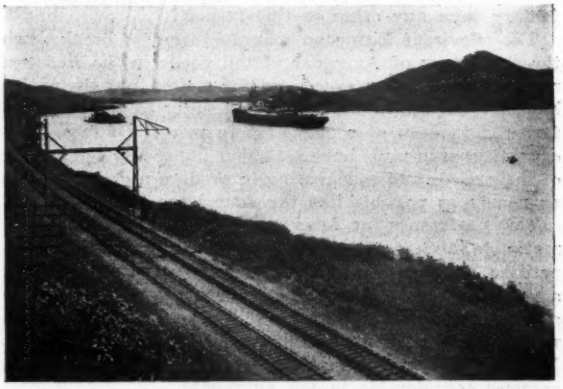
THE temporary disorganization of ocean traffic resulting from the great European war has now practically disappeared and shippers either to or from ports in the United States experience little or no difficulty in obtaining ample tonnage for their requirements.

The principal steamship lines, except those under the German or Austrian flags, are now sailing regularly from all Atlantic and Gulf ports of the United States. While passenger traffic continues light, the freight movement to foreign ports not closed by war is steadily increasing. There is a steady demand for steamers for grain, coal and barrel oil for European ports, and rates are firm. The demand for long voyage carriers is light, but the available supply of vessels is not large and rates are well maintained. The tonnage offering for the West Indies and South America is limited, but an improvement is anticipated in the near future.

Maritime freight rates in general have declined as compared with three weeks ago. To Europe the excess over normal does not exceed 25 per cent. on the average. To Asia, Africa, Australia and New Zealand, the premium varies from 20 to 25 per cent. Difficulty in financing shipments is still felt, although the foreign exchange situation continues to improve.

Rates of war risk insurance in most cases are now very nearly normal. Fluctuations occur as a result of disasters proceeding out of the present hostilities.

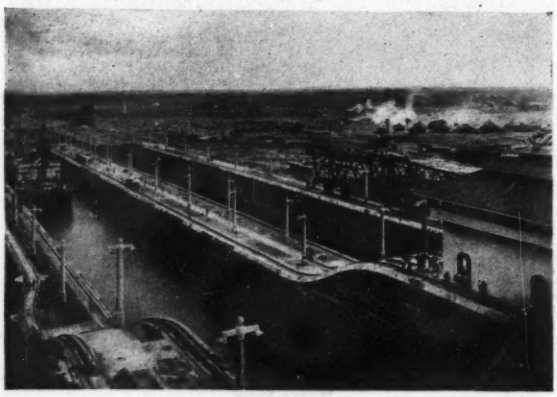
The 90 days' notice given by the Panama R.R., on the opening of the Canal, cancelling all through billing arrangements between that railroad and steamship lines,



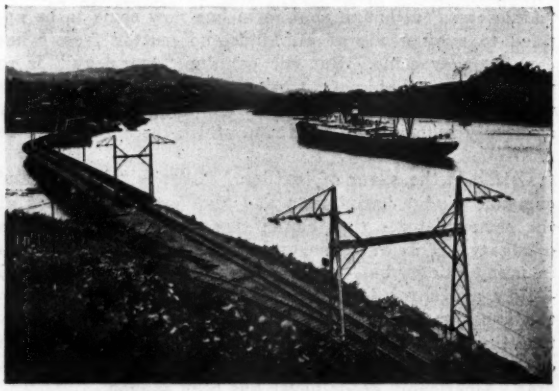
Gatun Lake, looking south from Caimito. The tracks of the Panama Railroad in the foreground

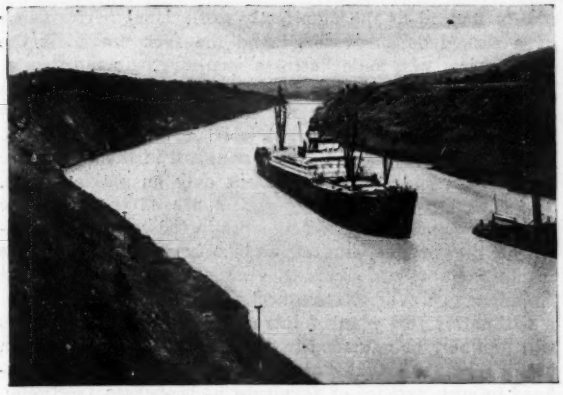
will become effective November 17. The Government does not allow the railroad to compete with the canal as a common carrier of freight. Vessels with freight consigned to ports beyond their destination will therefore, after the

West chamber of the middle locks at Gatun. The railway tracks are for the electric haulage of the ships passing through the Canal

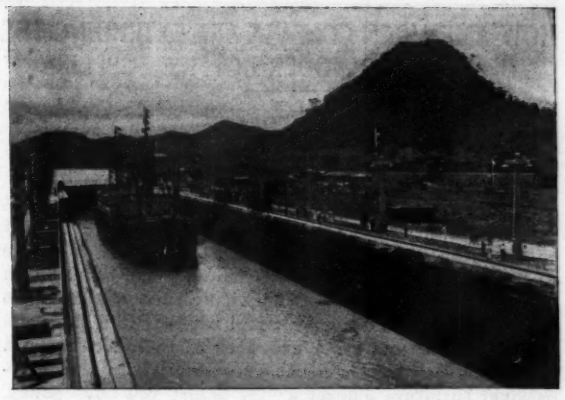


The railway bridge at the left crosses the Chagres River. The "Ancon" is proceeding south on her trip between the two oceans





Looking north through the famous Culebra Cut, near Empire. This excavation through the hills was once declared impossible



The east chamber of the Pedro Miguel locks, whose water level is the same as in Miraflores Lake

above date, store or transship such consignments at Colon or Balboa, so that their connecting lines may forward them to their ultimate destination.

At New York the shipping situation is practically normal so far as regularity of sailings and the number of freight-carrying vessels moving are concerned. The eastward movement of merchandise is light, but that of grain, coal and other staple commodities more than makes up for the deficiency.

At Boston the various lines are maintaining practically normal service, with no increase in freight rates to West Indian and Caribbean ports. At Baltimore freight rates, which were almost normal up to October 1, have risen

Cucaracha, which is here shown, is the place where the continued sliding of the earth has caused the engineers so much trouble

owing to the demand for grain tonnage from Montreal and Gulf ports, and at last reports, were almost up to the point where they were in the early stages of the war. Tonnage is being offered freely. There is no material change in the war risk insurance situation, although considerable interest is being manifested in it.

Forwarders to neutral ports at Philadelphia report difficulty in obtaining ships for cargoes offered, and freight rates are firm with a tendency upward. Shippers to English ports state that they are having trouble in obtaining cargoes, and are inclined to grant concessions in rates. The general shipping situation, however, is more nearly normal than a month ago. At Mobile, sailings have been resumed on practically all lines and a very complete service is now in operation to ports in the West Indies and on the East coast of Central America.

The shipping situation at the port of New Orleans, which was practically at a standstill during the early part of August, has shown a partial resumption. While a number of steamship lines now announce regular sailings, others do not, owing to the uncertainty of the arrivals and departures of their ships.

Practically no lumber or cotton is being exported at present, and most vessels are loading with foodstuffs.

During the month of September the United Fruit Company changed to American registry eight of their fourteen vessels from New Orleans, the steamer *Cartago* being the first.

The Luckenbach S. S. Line have announced that their steamer *Pleiades* will arrive at New Orleans by early in November, from San Francisco, via the Panama Canal, with a cargo of wines and canned goods. A return cargo has been assured, consisting of hardwood lumber from the New Orleans market, and machinery, etc., from Chicago. This boat will mark the establishment of steamship service between New Orleans and San Francisco, and regular sailings will be maintained.

Rates on marine insurance are reported as being practically normal, but no quotations are available for war risks as rates change daily and depend on the vessels, destination and class of cargo.

In the west chamber of the Miraflores upper locks. The electric engines that haul passing ships shown at right

Toward the end of the "Ancon's" voyage. The sea level section of the Canal south of Miraflores locks

HOW AMERICAN CONSULS ARE EXTENDING THE DEMAND FOR MODERN OFFICE SUPPLIES

The Office Furniture and Equipment of the Consulates Affords an Attractive Demonstration of Progress in this Line

By Waldon Fawcett, Washington, D. C.

FOREIGN purchasers of furniture in almost every country in the world are now being given, or will shortly be given, an opportunity to examine American furniture at their leisure in their home community and to ascertain by observation exactly how such furniture is adapted to service in a new environment and whether it is adequate to the climatic and other exactions of their locality. In short, this new arrangement puts in force in the international furniture market a "try before you buy" policy, or its virtual equivalent, such as has never heretofore been practicable in the case of manufacturers of any nationality.

Some fine examples of American-made office furniture in the United States Consulate, Rangoon, Burma

This opportunity for the effective introduction of American-made furniture, all around the world, is due to a new policy of the U. S. Consular Service—a policy which may be said to combine ways for the discharge of Governmental business with means for the promotion of international trade. The plan contemplates the equipment of all U. S. Consular offices throughout the world with furniture exclusively of American manufacture. The officials of the State Department at Washington, who have formulated this plan, were impelled in part by a desire for the standardization of consular office equipment, but incidently they were keenly alive to the opportunities which such a display and demonstration of American furniture would afford for stimulating demand for the same class of goods.

That official hopes as to the business-building influence of such a world-wide distribution of American furniture were fully justified has been proven by the orders which have already poured in upon American manufacturers, although by no means all of our consular outposts are as yet fully equipped with the furniture from the United States. From various countries in South America, Africa and the Orient good-sized orders have been received and, realizing the advertising value of the plan, a number of manufacturers now manifest a willingness to supply their goods to consulates at or below the cost of manufacture, merely for the sake of placing their product before prospective customers under advantageous circumstances.

Federal officials who are, of course, eager to extend American trade by every legitimate means, feel that in so far as furniture and office supplies are concerned installations in the consulates general, the consulates and the consular agencies afford an excellent means of introducing goods to the attention of foreign buyers. Such a plan is especially valuable for the reason that the possible buyer sees the goods under the normal conditions of every-day use and has the benefit of a demonstration that is a practical try-out in the hands of an operative of ordinary ability instead of the manifestly exceptional performance of a skilled demonstrator. And the fact that it is the progressive, well-to-do business men, or their representatives, who are most likely to call at U. S. consular offices insures a picked audience for the exhibition. Perhaps it should be explained, too, that it is not the policy of the consular officers to exploit the furniture in their offices as a salesman might were he intent only on making sales. The consular officer merely makes use of the furniture and equipment as occasion requires in the conduct of ordinary office routine, but experience has proven that the involuntary object lessons thus afforded constitute all the "missionary work" that is necessary to convert buyers.

Ultimately this plan of introducing American products will probably be extended to cover almost every article in use in consular establishments, but at the outset it is confined to such articles of furniture as bookcases (sectional, revolving and stationary), hatracks, settees, side chairs, upholstered and plain arm chairs, desks, file cabinets, card index trays, typewriter stands, safe cabinets, etc. The last-mentioned specialty in particular, the burglar-proof, fire-proof safe made of sheet steel, seems to have swept everything before it in a conquest of the foreign market. As a result of placing a safe cabinet of its manufacture in a U. S. consular office in Uruguay, a single company has sold more than fifty of these safes in that one South American country.

Speaking of the success of the steel cabinets of American manufacture it may be added that the same favorable verdict has been accorded the entire line of American metal furniture. Metal furniture literally supplies a long-felt want in the tropics, and, as the foremost producers of this class of goods, American manufacturers are naturally benefiting thereby. The circumstance that metal is not susceptible to the atmospheric conditions which in a humid climate will cause the most carefully-made wooden drawers to "stick" is a tremendous point in its favor that far outweighs any consideration of slightly increased cost, but in addition to this there is the extra boon which metal furniture confers of immunity from the insect pests which are such a menace in tropical countries. The foreign demand for American steel furniture that has been inspired by the adoption of such utilities in the consular offices

In hot and humid Sierra Leone, Africa, the steel furniture of the United States Consulate is a fine object lesson to buyers

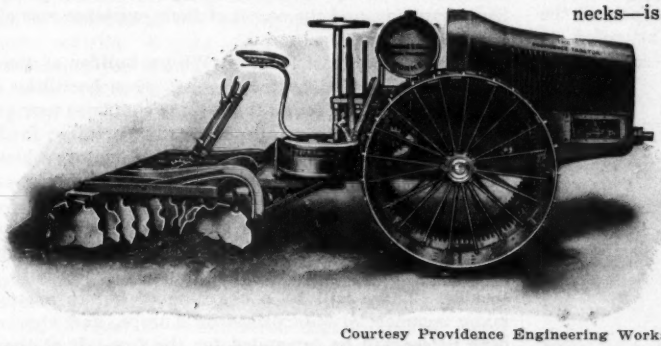
manifests itself particularly in inquiries for steel desks (preferably the flat-top, sanitary style) and for correspondence files and sectional bookcases, while many buyers overseas have been deeply impressed by the double wall construction in steel goods.

The Department of State, like other branches of the National Government, is obliged by law to purchase supplies under a system of competitive bids, but, given even price conditions, every effort is made to give representation to as many different manufacturers as possible. Incidently this distribution of orders further aids the broad cause of trade as evidencing to the prospective foreign customer the diversity of American models, finishes, etc., in the line of goods in which he is interested.

A TRACTOR OF ORIGINAL DESIGN

A Moderate Priced Engine that Meets the Requirements of Small Sized Farms

So much has been said and written about the economies to be derived from the employment of traction engines on the farm, that to-day there are probably but few progressive farmers who have not felt a desire to avail themselves of their advantages. As a rule, however, this kind of machinery is very expensive, and only where there is a large quantity of ground to be cultivated can they be made profitable. For this reason, while a great number of planters and farmers realize the conveniences to be derived from the possession of one of these engines, they feel that their farms are not large enough to warrant the investment.



Courtesy Providence Engineering Works

This tractor, driven by a 30-horsepower, three-cylinder gasoline motor, can be used for plowing, harrowing, harvesting, logging, hauling and road grading

It is the man owning a small or medium-sized farm, therefore, who will be interested in a traction engine of distinctly original design that has recently appeared on the market. In producing this engine, which is shown in the accompanying illustration, special consideration has been given to making it at a reasonable cost, to bring it within the reach of the man of moderate means, and at the same time providing the highest efficiency so that it will meet the requirements of the most exacting buyer.

The engine is a strictly one-man proposition, and it is said to be so simple that practically anyone can operate it. It is light in weight, will turn quickly in all directions, will work in small spaces, is low in height, narrow in width and very easily controlled, so that it can work between trees or close up to the fence in small fields. The tractor is driven by a 30-horsepower, 3-cylinder, vertical type gasoline motor, having its cranks spaced 120 degrees apart, so that there is no torque and the turning movement is almost constant. The normal speed of 700 revolutions per minute is controlled by an automatic governor, so that without any attention on the part of the operator, the engine adjusts itself to its work and maintains a uniform speed. This eliminates all danger that may arise from racing or overspeeding through the carelessness of the operator and practically does away with all engine troubles. As can be seen, there are but two driving wheels on the new tractor, and these carry substantially the entire weight of the machine and are independently connected with the differential. They are driven by a cast steel spur pinion meshing into an internal gear on the inner edge of the driving wheels.

This engine will easily pull one, two or three plows, according to the nature of the work that is being done and, whenever desired, can by means of a draw-bar be attached to a disc harrow, seed drill, potato digger, wagon or any other vehicle or implement, or a pulley can be attached by means of which the machine can be used for sawing wood, pumping, threshing, feed cutting and other mechanical purposes.

AN IMPROVED RIDING CULTIVATOR

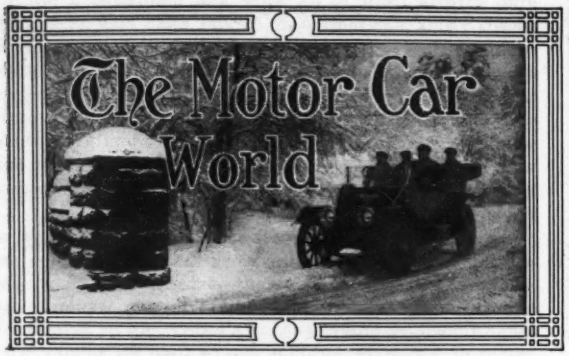
A Farm Implement Whose Distinctive Features are Appreciated by Many Farmers

One of the great drawbacks to the general use of riding cultivators—the weight of the rider upon the horses' necks—is entirely eliminated in the implement shown herewith by a simple, but extremely efficient device which enables the wheels to be shifted forward or backward, so that the pole can be suited to a driver weighing from 75 to 300 pounds. The pole remains level at all times, and change of draft such as may occur when passing from sandy soil through a strip of grass or weeds, has no effect on its balance. Consequently there is no flying up of the pole, no neck-weight and no sore necks for the horses.

Another feature which is said to be distinctive with this tool is that it is practically automatic in its operation. There are no levers, horse lifts or other contrivances to bother with. The weight of the gangs is so evenly balanced that it needs only a moderate pressure of the feet in the stirrups to keep them any distance in the ground that may be desired, while they can be shifted from side to side with the greatest ease and accuracy. When the end of the row is reached, the lifting of the driver's feet causes the gangs to rise without any other exertion, thus rendering the turn both rapid and easy.

Courtesy Roderick Lean Mfg. Co.

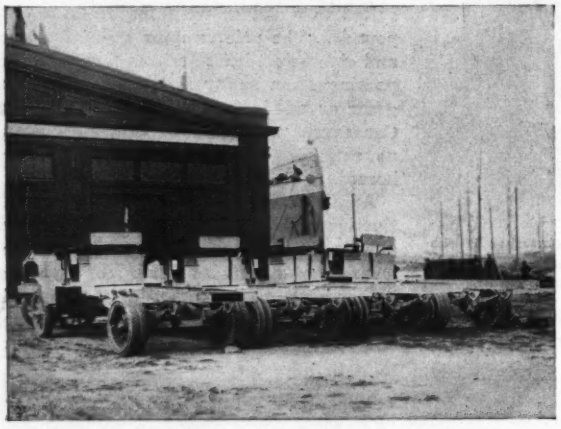
More than 200,000 of these riding cultivators are in use in the American corn belt. They have done much to make the farmers' work easy



MOTOR CARS IN WAR

Rapidly Displacing Horses and Revolutionizing Military Methods and Strategy in Modern Armies

EVER since the automobile first made its appearance it has been recognized that it was destined to occupy an important position in the transport service of the modern army, not alone because of its ability to carry heavy loads, but also on account of the speed with which it can carry supplies or men from place to place. In fact, all the leading powers have devoted considerable attention to equipping their forces with power vehicles, so designed



Part of a consignment of 200 motor trucks for army use at a Brooklyn pier awaiting shipment to Europe

as to render them especially suitable for military use, and already there is a great variety of armored cars, guns fitted with automobile chassis, motors for carrying ammunition, ambulances, cook wagons, etc., giving excellent service in different countries now engaged in war.

The effects of the tremendous destruction of motor trucks and other mediums of transportation that have been going on in Europe since the beginning of hostilities are already being felt by American manufacturers. Within the last month several large shipments of motor trucks destined for war service have been made from New York, and there are reports of large contracts for similar vehicles being placed in the United States to be manufactured and forwarded at the earliest possible date.

Recently the steamship *Suruga* cleared for Liverpool with a shipment of some 400 five-ton motor trucks. They were tested by experts as they were delivered at the entrance to the pier, and were sent aboard the steamer as fast as they were accepted. Not far away, at the same time, another vessel was receiving a consignment that was said to consist of several hundred of these heavy duty vehicles. In each case the utmost secrecy was maintained regarding the ultimate destination of these motor trucks, and even the names of the manufacturers and shippers were not disclosed.

Among the recent news dispatches was one which stated that a company in Pennsylvania, manufacturing automobile frames and bodies, had received an order, said to be from the French Government, for 2,500 auto frames, to be delivered within the shortest possible time. The specifications are said to call for a strong steel frame of light weight, all of one type, which will greatly facilitate quick delivery.

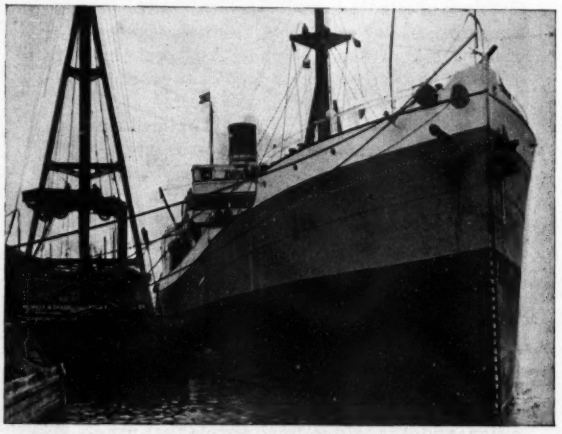
A large steel manufacturing concern in the Eastern States is said to have been asked by the French Government to procure for use in the European war a considerable number of motor vehicles. The number is not given, but the inquiry is reported to cover not only motor trucks, but touring cars. The price fixed for the motor trucks is stated at $3,000 each. In addition to these, it is said that contracts are to be placed for 250 motor tractors and 750 trailers, to cost from $3,000 to $4,500 each.

One American concern, making powerful tractors of the "caterpillar" type, sold a number of its vehicles both to European Governments and to private purchasers during two or three years preceding the outbreak of the war. It is now reported that practically every one of these "caterpillars" has been confiscated for war use. In Germany they are used to haul the huge siege guns, weighing 30 tons each, that have done so much damage to the seemingly impregnable fortifications against which they have been directed. These powerful guns were the surprise of the European war, and the secret of their existence was closely guarded by Germany.

It is the opinion of John N. Willys, builder of the Garford and Willys-Utility trucks, that when hostilities cease in Europe it will be found that all the countries now at war will be entirely without adequate transportation facilities, and that the wholesale destruction of motor vehicles is rapidly decreasing the number of cars and trucks on the Continent.

"Great numbers of horses are being slaughtered daily," says Mr. Willys, who returned recently from the European war zone, "and every available animal already is in army service. There will be a shortage of horses among the many commercial enterprises of Europe, and abnormally high prices will be demanded for the few left at the close of the war.

"Motor trucks have proved themselves invaluable in transporting supplies and ammunition, and in contributing towards the rapid movement of troops. But no mechanism,



Hoisting an army motor truck on board the S. S. "Suruga" at the Fabre Line pier in October

however strongly constructed, could withstand the terrible treatment they have been receiving in the field. War has left neither the time nor the facilities for giving the care necessary to keep the trucks at their high point of efficiency. In the continual rush of the campaign, drivers cannot stop to replenish the oil supply or adjust small mechanical difficulties. They keep the car going just as long as they can and then are forced to desert it for another. On roads used by the big armies, deserted motor trucks are found at frequent intervals.

"The army trucks travel in convoys, consisting of an

assortment of perhaps a score of vehicles ranging from light to heavy and from good to bad. It is to be expected that when an exceptionally rapid pace is maintained, some of the trucks prove unequal to the task. The military authorities are absolutely ruthless in the use of the vehicles they have in their service. It is usually impossible to find garage facilities within access of the base of operations. Consequently the trucks remain in the open, rain or shine, and they will doubtless continue to do so until the war is over. Rust will ruin the best piece of machinery ever built.

"The upshot of it all is that upon the declaration of peace there will be an exceedingly brisk demand abroad for commercial vehicles. Business will be resumed, lines of traffic will reopen, and there will be merchandise to be moved. Europe will demand trucks.

"At the same time the industries abroad will be in a state of complete demoralization, from which they will be unable to recover for many months. The automobile factories already are so completely disorganized that if the war were stopped today, a lengthy process of repairing and rebuilding would be necessary before they could be ready to conduct business. They will not be able to resume work at the point where they shut down to allow their men to respond to the call for army reserves.

"The United States will be the quick source of supply for motor vehicles. Europe will have to come to American manufacturers for trucks."

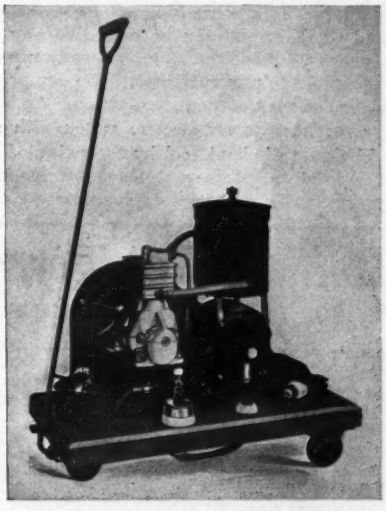
For some years past several of the European nations have given subsidies to manufacturers and purchasers of certain types of motor vehicles in order to secure standard models in the various classes. It is estimated that the military requirements of Germany and France, at the outbreak of the war, each were in the neighborhood of 6,000 motor trucks. Great Britain, owing to its comparatively small standing army, did not need more than about 1,000 of these heavy vehicles. In considering the reserve supply, most of which already has been commandeered for military use, it must be remembered that industrial motor vehicles are employed more extensively in the British Isles than in any other country, and that therefore there will be enough in Great Britain to meet the demands of the War Department for some time. In France the number of such vehicles available at the outbreak of hostilities was much smaller, and the same was even more the case in Germany and Austria. In Russia and Italy the use of mechanical means of transport for commercial purposes is only in its infancy. These countries, especially, will have to depend on the direct purchase of machines for the use of their armies.

Russia's initial purchases were from British manufacturers, and it is now reported that she is seeking to procure a considerable number of motor trucks from the United States. Italy bought quite a number of motor trucks, the majority being of rather light construction, before and during her recent war in Africa. These, for the most part, were of Italian make. A number of miscellaneous industrial vehicles were also employed in the Balkan wars, but they were nothing like the well organized "fleets" of standard patterns that are a feature of the present great conflict.

TIRE PUMPS AS BUSINESS WINNERS

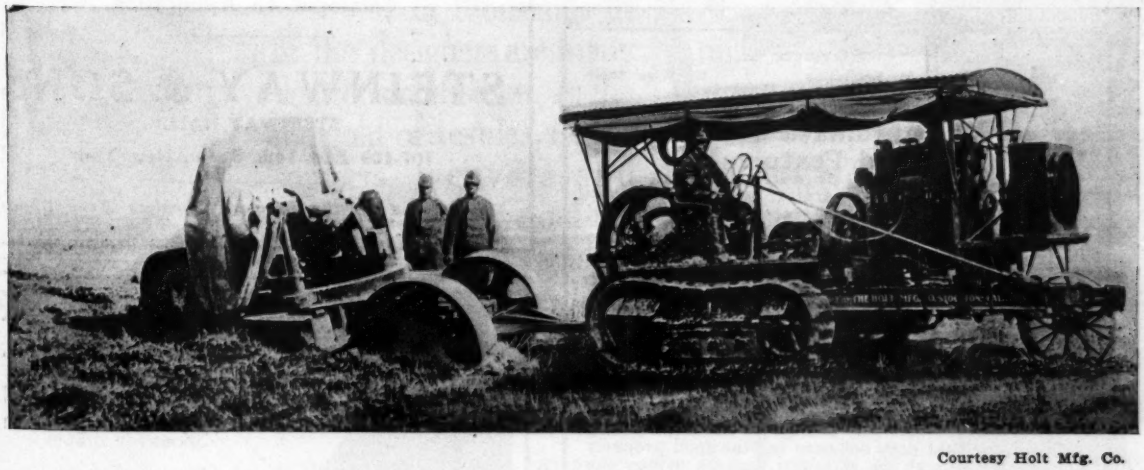
How Garages Enlarge Their Clientele by Supplying Free Air to Auto Owners

ONE of the most tiresome tasks that confronts the average owner of an automobile is the necessity of occasionally pumping up his tires, for it is hard work with the ordinary hand pump and there are many motorists who do not care to go to the expense of purchasing a pump operated by power. The most natural thing, therefore, for an owner of a car to do when the air in his tires needs replenishing, is to have it done at the nearest garage. It was formerly the universal custom to charge a fee for doing this work, practically the only exceptions being the instances where the garage owner would place a hand pump at the disposal of the person needing air in his tires and allow him to do the work himself. Of late, however, the custom is growing of making no charge for the



Courtesy Mayo Co.

A handy power pump for inflating tires, intended for use in garages and repair shops



Courtesy Holt Mfg. Co.

This picture shows a caterpillar tractor hauling a German siege gun. These powerful guns were the surprise of the European war. The gun weighs over 30 tons. Practically every caterpillar in Europe has been confiscated for war use

service, the enterprising proprietor of the garage knowing that he will be more than repaid for doing this by the extra business that will be brought to his establishment. The pumping up of tires without charge has brought the garages that pursue this policy many customers for their oils, gasoline, supplies, repairs, etc., and doubtless in numerous instances has proved to be the introduction that eventually resulted in the sale of a new car.

The power air pumping plants of most garages are stationary and are usually located in places that necessitate driving the car into the building, which is time-consuming and sometimes inconvenient, especially when it is crowded with cars. It has therefore always been recognized that a moderate-priced, reliable and efficient power plant that could be easily moved from place to place, either inside or outside the garage, would meet with a ready welcome.

An outfit which apparently meets all of the above requirements has lately been placed on the market; it is small and compact and can be moved to any part of the garage, or even outside the building, ready to render immediate air service to any customer. The equipment consists of a simple but very efficient two-cylinder air pump driven by a quarter horsepower electric motor with silent chain drive. The pump is kept cool by a constant flow of water in the jacketed cylinders supplied from the tank located over the motor by a thermo-syphon system of flow. To avoid any chance of burning out the electric motor by starting against too heavy a pressure, the air is first pumped into an auxiliary tank underneath the pump, this tank being fitted with a check valve outlet to the hose connecting with the tire valve; it is also provided with a petcock which automatically opens when the starting switch is turned off, thus exhausting the air pressure in the tank. On the other hand, turning the starting switch automatically closes this petcock, so that the motor is always started up against the empty tank, thereby permitting it to speed up before working against heavy pressure.

The entire equipment is securely fastened to a heavy oak base, having two heavy iron wheels under the rear and a substantial caster under the front. A length of insulated electric wire with separable attachment plug and twelve feet of high grade rubber tubing, together with a thoroughly accurate pressure gauge and tire connection are provided with every machine.

EVERY new fashion represents the combined skill and effort of thousands of persons. Back of the designers are many mills and many dextrous craftsmen. In the making of silk, the gold of textiles, an army of expert spinners, weavers and dyers is employed in working out the hues and patterns and giving adequate form an expression to the ideas of the artists. So it is with all other fabrics, no matter what the material. The laces, embroideries and garnitures that enhance the beauty of the gown and of its wearer are the work of master hands. In the designing and manufacturing of apparel for men and women no other country can offer such a high development of great facilities as the United States.

Robert model: rose-color velvet, embroidered in silver, fur trimmings, silver lace sleeves

Poiret model: cloth of gold, with tunic and sleeves of jet spangles and Oriental colors

Callot wrap of spotless ermine: gown of black tulle, satin and jet, by Doucet

Some of the latest Paris styles, shown by Gimbel Brothers at their autumn promenade des toilettes

MARKETING READY-TO-WEAR GARMENTS BY MAIL AND THROUGH RETAILERS

A Line of Merchandise that is Creating Trade for Merchants in Many Countries by Reason of its Novelty and Selling Merit

THE manufacture of ready-to-wear apparel for men and women has become one of America's leading industries. Because of their style, their wearing qualities, their excellent workmanship, and the long period that they keep their shape, these garments, made in the United States, are finding a steadily increasing sale in the competing markets of the world.

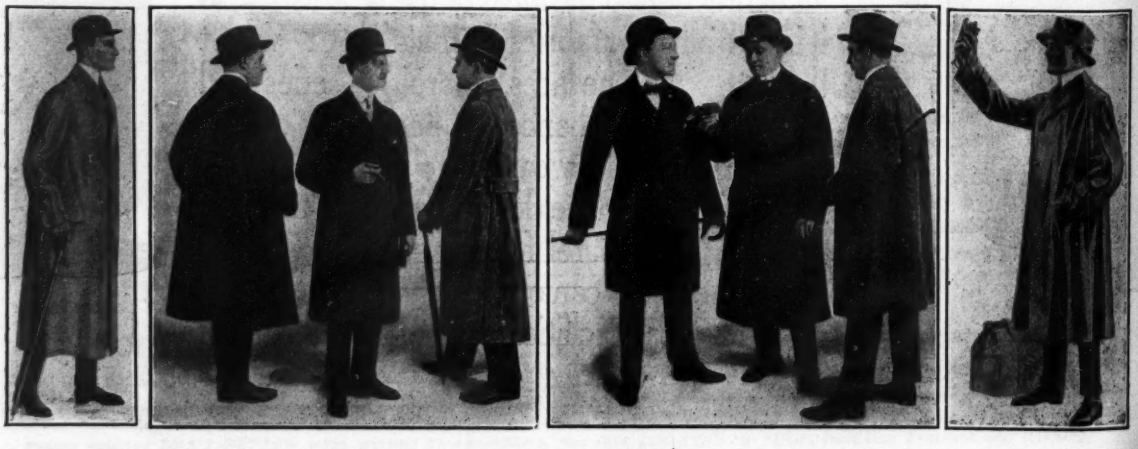
This pre-eminence has been attained through the taking of infinite pains. Not many years ago there was a wide difference in price, quality and fit between ready-made and made-to-order garments. Ready-made apparel had to be altered materially in order to fit each individual customer. These changes were expensive, annoying and unsatisfactory. Out of the necessity for improvement in this respect one of the ideas that has successfully established the ready-to-wear garment business was born.

This idea was to select a number of models—men and women of different height and weight, representing the average graduations of physique from youth to age—and make clothes that would fit them. In the course of time many sets of fundamental patterns were evolved so that clothes to fit accurately all men and women, tall or short, stout or thin, could be turned out. The plan has been improved in its details from time to time. The result is that to-day any person anywhere can take his or her own measurements, send them to the manufacturer or retailer in the United States, and get a suit as well fitting as any first-class tailor could produce, and at a considerably less price.

As much attention is paid to style as to fit. In men's clothing, for instance, the boy of 20 and the man of 70 may purchase the same cloth in their respective suits, yet each will be appropriately garbed. The suit the boy wears, together with his hat, tie and furnishings, will add to his dignity. With the man of 70, however, the art of the manufacturing tailor softens the suggestion of age by 10 or possibly 15 years.

In women's apparel ready-to-wear garments are not confined to those that are tailored. From ball gowns to kitchen wrappers a woman can secure anything she wishes ready-made nowadays. And she can be sure that it is the very latest word in style. The American women are often referred to as the best-dressed in the world. They have become so since the making of ready-to-wear garments

The latest popular models of weatherproof overcoats. They are made in a wide variety of fabrics, weights and patterns: for every walk of life and for all purposes Courtesy C. Kenyon Company



Wrap by Drecoll: exquisite specimens of broadtail, with large collar of kolinsky

Wide skirt Trotteur frock by Premet: navy gabardine; wine-color and silver embroidery

Premet model: striped velvet combined with black satin; collar and vestee white satin

These creations, received by Gimbel Brothers, New York, after the outbreak of war were shown at their autumn promenade

have made such remarkable strides towards perfection. The purchase price of every article of women's wear has been brought down to the lowest figure because manufacturers have been able to specialize and thus reduce their manufacturing costs.

The influence of Paris is still strong in women's styles. It is interesting to note, however, that American manufacturers are becoming such adepts in improving upon the accepted styles of Paris that they are really entitled to the credit of having evolved fashions that are distinctively American. There is not a dress creation that American manufacturers cannot duplicate. And with improving touches made here and there they are able to satisfy every whim of the women who take pride in being well dressed. That is an art in itself, and it has done much to give New York its high position in the realm of fashion.

As a matter of fact, there are no absolutely original fashions. All that any creator of styles can do is to adapt and modify, to suit modern conditions, certain old and historic ideas in dress. The Russian blouse, for instance, has been worn by peasants in that country for centuries; the Empire gown is an adaptation from the Greek, and so on. American fashions owe much of their distinction to the grace and beauty of their lines. In this they excel.

New York City is the chief center of this class of trade and manufacturing. The annual value of the women's clothing produced or sold there is more than $250,000,000. In millinery and lace goods it is about $40,000,000. There are nearly 1,000 manufacturers of men's ready-to-wear clothing, whose total output is valued at more than $175,000,000.

Not only in manufacturing but in marketing by mail, there is systematic, scientific method, so highly developed that it would seem hard to improve.

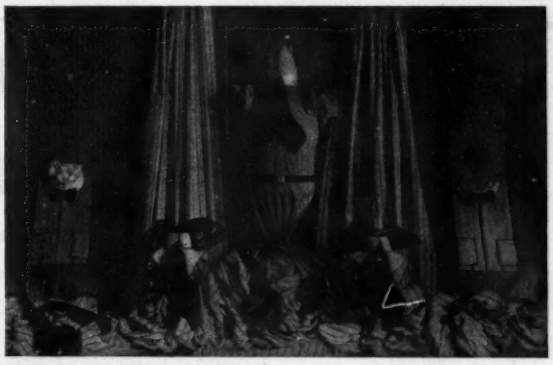
In the retailing of ready-to-wear apparel, however, the foreign dealer who carries an adequate stock of American-made garments has a great advantage over the mail-order house thousands of miles away. He can serve his customers at once. On this account, American manufacturers have found that it is usually more satisfactory to make one dealer in each town an exclusive agent for the sale of their garments. By carrying a well-selected line the dealer can meet his customers' current requirements immediately, and can order by mail whatever he may not have in stock. This plan has worked out satisfactorily between American manufacturers of haberdashery and their foreign customers.

New York is as great a fashion center for millinery as it is for gowns. Its exports in this respect, however, consist largely of materials used by milliners, such as covered wires, buckrams, muslins, laces, artificial flowers, etc. These are produced in great variety.

Readers of DUN'S INTERNATIONAL REVIEW, who are interested in securing agencies for American ready-to-wear apparel for men and women, or in related lines, such as milliners' supplies, will be placed in communication with the manufacturers if they will address this publication and state their requirements.

These model hats are representative of the latest vogue in millinery, and are purely American style creations. Those at the right and left are strictly tailored, and the one in the center a dress hat. Black velvet is especially popular this season

Courtesy The Mode Hat Company



The successful haberdasher gives his window displays much careful thought, for through them he makes a direct appeal to the passerby. The illustration at the left shows accessories in a variety of color schemes well posed; at the right an attractive draping of piece goods

NEW YORK SETS HABERDASHERY STYLES FOR TWO CONTINENTS

Popularity of American-Made Haberdashery Abroad Largely Due to Efforts of Manufacturers to Improve Designs and Fabrics

Illustrated by Photos Loaned by The Haberdasher, New York

THE manufacture of haberdashery is a very large and highly developed industry in the United States. The makers of shirts, cuffs, collars, underwear, etc., use the same scientific methods of production and management, the same art and skill in designing, and make the same thorough study of the requirements of foreign buyers that is the rule with manufacturers of men's and women's ready-to-wear garments and of other merchandise in which a combination of utility and beauty is especially desired.

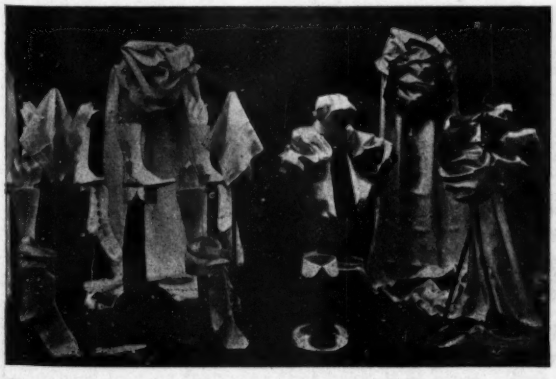
The three essentials of good haberdashery are style, quality of material and excellence of fit. While there are always styles that are distinctively American, just as there are those that are characteristically English or French, the most universally popular American styles are those that represent a harmonious blending of the best features of the fashions of London and Paris and other large style centers with those of New York. American designers are particularly skilful in modifying and adapting their own ideas so that they will meet the tastes and requirements of individual countries, climates and conditions of life, no matter how varied or exacting. For this reason American haberdashery has achieved a popularity that is becoming world-wide.

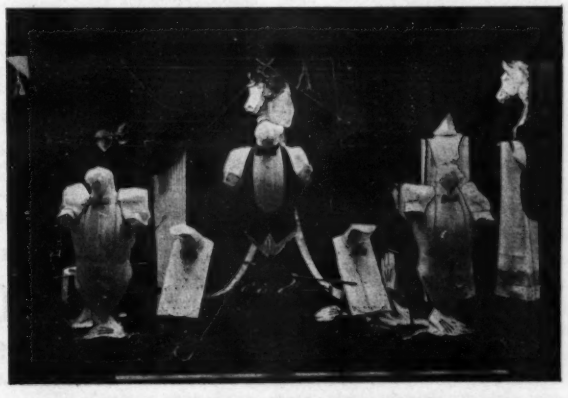
New York City, owing to its size and its proximity to the great haberdashery manufacturing centers of the country, has become not only the style center of America in this line, but also of the Western Hemisphere. It is in New York that the new designs, for the most part, are originated, and it is there that they are first worn and become the fashion. It is there also that each fresh feature in shirts, collars and ties is studied with a view to its adaptability to the various markets abroad. Thus it has come about that New York has become the great buying center to which many foreign haberdashers send or come for their seasons' supplies.

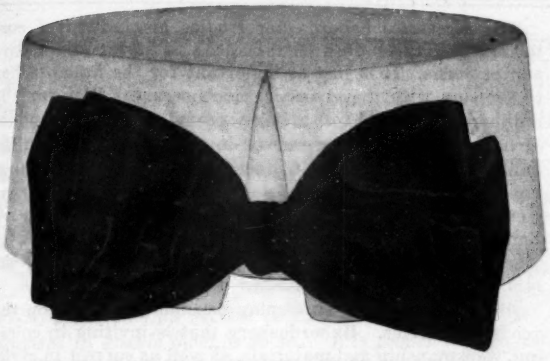
The soft shirt owes much of its world-wide popularity to America. Less than ten years ago it was worn only in the summer. Now it has become a garment that is fashionable the year around. The stiff-bosomed shirt is being reserved more and more for formal wear. Upon the soft shirt more than upon almost any other article of haberdashery the American manufacturers have lavished every effort in the way of originating new designs, employing new weaves of all available materials, and in a scientific study of patterns which will give the best fit and the greatest degree of comfort.

Shirts are now made in quarter sizes, each size having its own graduations of sleeve lengths. A few years ago quarter sizes were unknown in anything except hats. Now not only shirts, but collars are made in this way, and inaccuracies of fit that were formerly as uncomfortable as they were unsightly can now be absolutely avoided by anyone who will take the least pains in choosing his requirements.

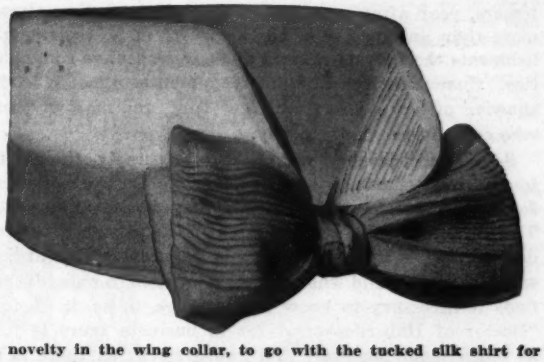
Here are two other examples of how some of the leading haberdashers of New York City display their goods in the shop windows. At the left is shown a selection of accessories for autumn wear; at the right, the latest styles in evening dress







A stylish tie of rich, dark moire silk, with black narrow stripe running the long way. Colors: deep purple, dark navy and London Gray



A novelty in the wing collar, to go with the tucked silk shirt for evening wear—the inner side of each tab has fine tucks

The popularity of the American idea of intermediate sizes has not made it necessary, however, for the retailer to increase his stock materially. There are so many kinds of goods and patterns that by using a little taste and judgment the dealer can offer a far wider selection for his customers to choose from than was possible even a few years ago. The tremendous growth of the shirt and collar industry in the United States has brought about many economies of manufacturing, particularly in the way of substituting machine for hand labor, and these have resulted in an average decrease in the cost of production and an increase in the inherent value of the goods produced.

This is particularly true of collars and cuffs. Where there was one style a decade ago there are a dozen now, and they cost only about half as much. Not only that, but each style runs through every graduation of size. It is the custom for each manufacturer to arrange his current styles in a vertical showcase so that customers may see them at a glance and make their selections intelligently.

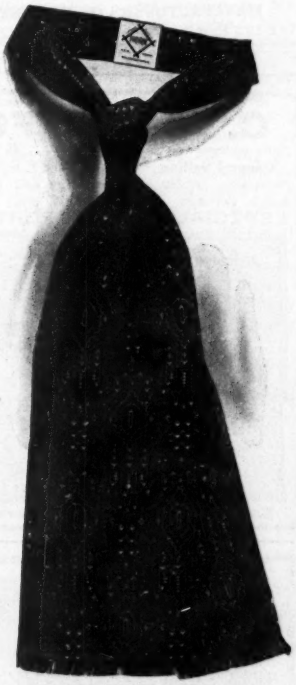
In ties there would seem to be very little room for change, aside from materials and patterns. But every now and then some American manufacturer originates a new feature that adds much to the attractiveness of his product. It may be an improvement in the lining that makes the tie keep its shape longer, or it may be some well-placed loop or fastening that holds it in place. Such things as these, though they are seemingly of small importance, are great aids in retail merchandising.

The average well-dressed man nowadays has dozens or scores of ties. It is the one article of dress in which he is at liberty to gratify his taste for bright colors. The American manufacturers, realizing this, have paid special attention to making their ties as attractive as possible in hue and design. New weaves and patterns appear on the market every week or every month. As a matter of fact, it is seldom that any tie that is in good taste is ever unsalable.

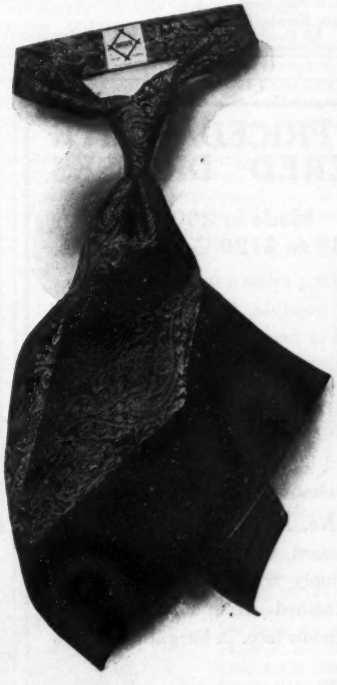
One leading manufacturer of neckwear in the United States has followed a rather original plan in dealing with the retailers who handle his goods throughout the country, and in his export business wherever it is practicable. He sells to only one dealer in each town. He coöperates with that dealer to the fullest extent. He sends him a fresh stock each month according to his needs, taking back whatever patterns the dealer has found to be unsuited to his local demands. The monthly assortment of new goods is always the very latest in style and represents the popular taste of the moment—as indicated by the world's great fashion centers—in everything that goes to make up the indefinable thing called "style," which includes cut, fit, color, weave and size.

The dealers who have been this manufacturer's cus-

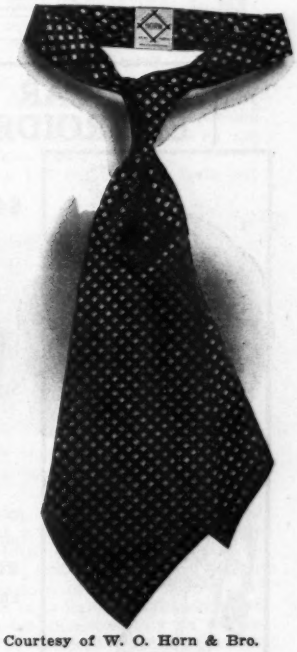
A silk twill scarf with rich, solid ground



"The Diplomat" is one of the latest creations



Silk basket weave ties are in good taste



Courtesy of W. O. Horn & Bro.

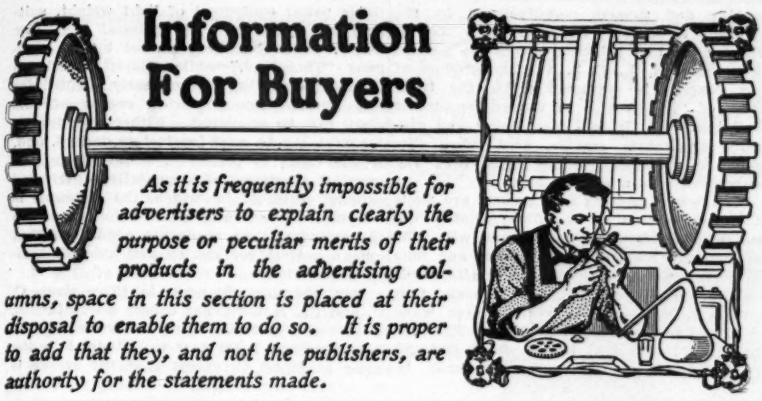
Of Persian silk with black satin border

tomers, year after year, report that this practice, almost more than anything else, has helped to make their establishments the fashion centers of their respective communities. Customers look forward from month to month to the showing of new styles from New York, and most of those who come in to see them buy.

Some haberdashery manufacturers supply their customers with charts or booklets showing the correct dress for men for all occasions—work, play, social affairs, etc. The average man is inclined to pay little attention to such details, and is apt to consult his haberdasher regarding what is suitable and what is not. The modern haberdasher finds it necessary to know these things, to be, in fact, a "Doctor of Haberdashery," for in business there is just as much room for study and improvement as there is in any of the learned professions.

The successful haberdasher studies his individual customers and their likes and dislikes in styles and colors and patterns. It is just as important for the haberdasher to keep up with the styles in men's wear as it is for the milliner or dressmaker to keep posted. The atmosphere of newness should be preserved in the store. This can be had by making the window displays attractive and changing them frequently. A note of originality in the arrangement of the articles is especially desirable. The illustrations herewith will afford some suggestions to dealers in other countries. They have been selected from among the best recent examples of window dressing art.

An attractive window display depends primarily on the goods themselves. Haberdashery that is inviting in coloring, workmanship and materials, as well as correct in style, brings new customers. American products in this line show careful attention to such details.

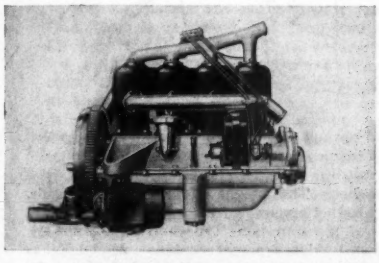


Information For Buyers

As it is frequently impossible for advertisers to explain clearly the purpose or peculiar merits of their products in the advertising columns, space in this section is placed at their disposal to enable them to do so. It is proper to add that they, and not the publishers, are authority for the statements made.

The New 1915 Model of a Well-Known American Car

THAT the outlook for the foreign trade in American automobiles and that the facilities for supplying it were never better is the opinion of John N. Willys, president of the



The right side of the new motor which embodies many improvements

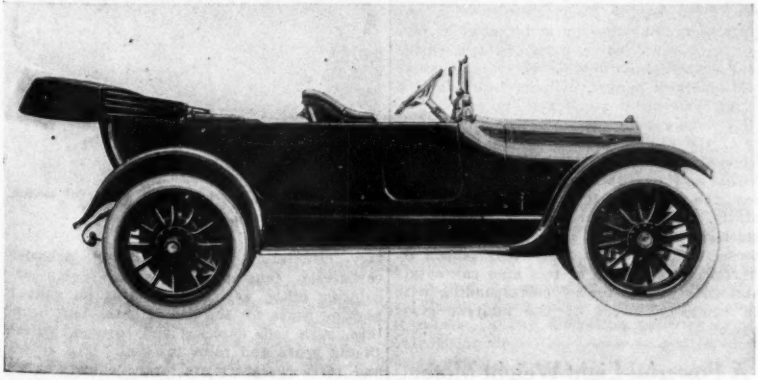
Willys-Overland Company, who has been making a personal study of motor car manufacturing conditions abroad and in the United States. Export shipments are being resumed on a large scale, and American factories are busy. He states that for the months of September and October the contract schedules of the Willys-Overland Company called for approximately 75 per cent. more cars than the schedules of a year ago.

The Overland 1915 car, which is designated by the manufacturers as "Model 80," embodies a number of improvements and noteworthy changes over last year's model, which make it particularly attractive, both to the dealer and to the individual purchaser. The points of the new car which first attract the observer are its graceful outlines, which conform to the latest ideas in streamline design, without being exaggerated or freakish. The radiator, whose shell is stamped from a single piece of steel, joins its curve admirably to the characteristic slope of the Overland engine hood, which gradually leads, without angles or abrupt curves, to the cowl dash, and sweeps onward to the back of the full-curved tonneau. The frame, running board bracket and battery box are concealed by the mud shields, adding materially to the fine appearance of the car. Though the wheelbase of 114 inches remains unchanged, the body is so arranged that it offers considerably more leg and elbow room. The rear seat, for instance, is 49 inches wide inside, the front seat, 40 inches wide, and the backs are 21 inches high in the rear and 19 inches in the front. The depth of the seats is 20 inches and their cushions slope toward the rear. This affords the easiest possible position for the passenger—the one least likely to be fatiguing, even when traveling long distances.

Much attention has been paid to interior refinements in the developing of this new body design. The storm curtains, for example, can be fastened and unfastened from the inside, and in fair weather are stored in a convenient metal box placed directly behind the front seat. This obviates having to disturb the passengers in the tonneau when the curtains are needed.

The old way of holding the folded down top in position was with leather straps. The new Overland has a unique clamp which holds the top so securely that all noise and movement are prevented. The doors have metal beadings for protection from the weather, and are hung on concealed hinges with inside-operated latches, so placed as to make it impossible to catch the passengers' garments. In all the doors are convenient leather pockets.

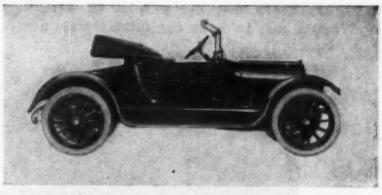
The Overland 35-horsepower motor has been improved in its oiling system, so that all the cylinders receive an equal amount of oil, both on the level road and when ascending the steepest grade. The pistons have been lightened and the piston rings have been re-designed so as to improve balance and reduce noise.



This five-passenger touring car, Model 80, is $1,075. Its wheelbase is 114 inches, tires 34x4, and the steering gear is left-hand with center control

For greater convenience and to do away with metallic sounds a union joint has been placed in the exhaust pipe. The ignition is by Bosch high-tension magneto, which is driven at crankshaft speed through a leather coupling, which eliminates all noise. The carburetor is of new design, having a hot air attachment for both primary and auxiliary ports and affording protection to the valves from dirt.

The Overland floating type of rear axle and the brakes are unchanged in the new Model 80. A new front axle of the I-beam type has been employed, and this, with the new drop frame, brings the body of the car



The Model 80 two-passenger roadster, priced at $1,050 with full equipment

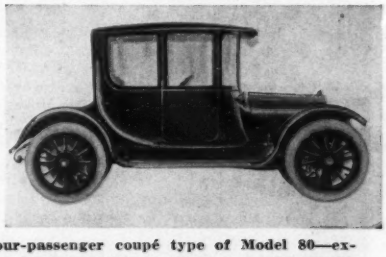
closer to the ground. The rear springs are three-quarter elliptic, 48 inches long and 2 inches wide. They are slung under the axle on supports which swivel on the axle housing. The possibility of side-sway is eliminated by the use of well-proportioned eyes and carefully fitted shackle bolts. The front springs are semi-elliptic.

The equipment includes electric lights, top and boot, windshield, speedometer, demountable rims and electric starter and generator of the two-unit, six-volt type. The tires are 34 x 4 inch, which give easy riding with long wear.

The price of the standard touring car model, seating five passengers, is $1,075. The two-passenger roadster is $1,050, while the four-passenger coupé, equipped with 35 x 4½ non-skid tires, is listed at $1,600.

An Overland Standard Roadster recently beat the fast Natal mail train on the long trip from Johannesburg to Durban, bettering the time of the train by 8½ hours on the round trip of 840 miles.

The Overland and the big mail train left



Four-passenger coupé type of Model 80—exceptionally stylish for town use—price $1,600

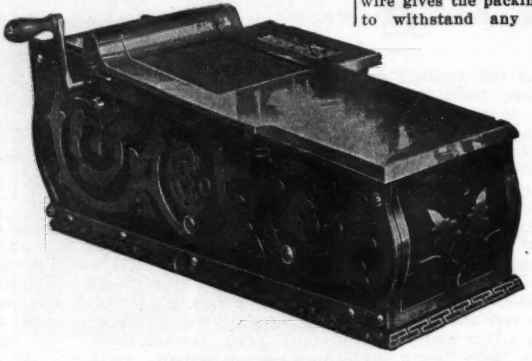
Johannesburg at 8 P. M. The car reached Durban at 1.35 P. M. the next day, five hours ahead of the train, after making stops at all points where the train was scheduled to stop to take on mail or to change engines. At 5.50 P. M. the same day the automobile and the train started simultaneously on the return trip. The Overland reached Johannesburg three hours ahead of the train, which made both trips on scheduled time.

This performance is considered particularly remarkable, as the South African roads are rough and sandy, in places being merely bush tracks. In addition, the Overland car was delayed by 104 gates marking the boundaries of large African ranches, the driver being forced to bring the car to a dead stop, dismount, drive through, and then stop and close the gate before starting on his way. The only involuntary stop was caused by a puncture on the famous Majuba hill.

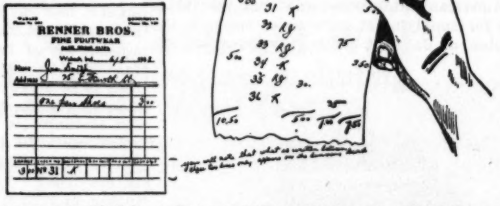
The address of the Willys-Overland Company is Toledo, Ohio, U. S. A.

A Model System of Recording Sales

BUSINESS men everywhere appreciate the importance of maintaining an efficient system of keeping a correct record of sales, and constant efforts are being made to improve and simplify the means by which this work can be done. Among the many ingenious devices that have been introduced for enabling the merchant to keep posted on the daily transactions of his establishment, there is probably none that possesses greater convenience and efficiency than the Egry Roll Record Register, manufactured by the Egry Register Company, Dayton, Ohio, U.S.A. The Egry Register consists of a locked case in which there are three rolls of sales slips. When a sale is made the clerk writes a record



A roll record register that enables the small store proprietor to keep track of his business



A sales check filled in and part of the summary record of the same sale referring to check No. 31

of the transaction on one of these slips, which is exposed on the top of the machine, and this record is at the same time made on two other slips. A turn of the handle then delivers two slips to the clerk, one of which is given to the customer and the other placed on a file, while the third remains under lock and key in the register. Thus at the end of the day the proprietor has a complete record of all sales that have been made, and knows that it must be correct because of the check afforded by every customer being presented with a bill of what he has bought.

The manufacturers of the Egry Register state that among the great advantages possessed by their machine is the fact that a more complete and detailed account can be kept by it than by any other device that has yet been introduced, and not only that, but every item is in the handwriting of the clerk making the sale, which is an almost absolute preventative of dishonesty or carelessness. Each check is numbered consecutively, and will state the amount of the sale, whether it be for cash or charge and the department in which it is made, together with the clerk's initial. Besides this, any number of columns can be used as desired, so that the items may be listed under such heads as "Cash Sale," "Charge Sale," "Received on Account," "Paid Out," "Cost," etc.

The Egry Registers are made in a great variety of styles and prices so that the needs of practically every line of business can be met from the regular stock, but when desired special sales slips can be supplied to meet unusual requirements. The rapidity, efficiency, simplicity and economy of these registers are causing them to be adopted by thousands of enterprising merchants in all parts of the world, and every person, no matter where he may be located or whether his business be large or small, should write to the company for prices and catalogues in which they are fully described and details of their operation given.

High Pressure Packing and Gaskets

THE attention of engineers and owners of steam power plants who have experienced difficulty in obtaining tight and durable joints and valves is directed to the high pressure packing and gaskets manufactured by the Asbestos & Rubber Works of New Jersey, whose mills and principal offices are located at Camden, N. J., U. S. A. The product of this concern is marketed under the trade name of "Longwear," so termed because it is claimed that it will last longer and give more satisfactory service, even when subjected to the most exacting tests, than any other article of a similar nature.

"Longwear" packing and gaskets are made of a combination of the finest quality Canadian asbestos and fine brass wire, the former being spun around the wire and then woven into a close fabric which is afterwards coated with a special packing compound that renders it absolutely impervious even when submitted to the greatest pressure. Thus the wire gives the packing the necessary strength to withstand any pressure that may be brought to bear upon it, while the asbestos protects it from the heat, making it a perfect material for securing tight joints in steam pipes, compressors, valves, etc.

This packing can be obtained in sheets 40 inches wide of any length or thickness desired, and the user can cut it with a heavy pair of shears to any necessary size or shape,

Longwear

Trade-mark of the Asbestos & Rubber Works of New Jersey

while for the convenience of those who do not wish to do this work themselves, it is supplied already cut to fit any size of pipe. It is also made in spirals and coils in all sizes ready for immediate use on pistons, piston rods, valve and regulator stems, pumps, etc.

"Longwear" goods are extensively used in the United States Navy and by manufacturers of automobiles for motor exhaust pipe flanges, exhaust valve covers, plugs, carburetors, motor inlet manifolds, exhaust valve manifolds and flanges, cylinder head gaskets, oil pan and water pump gaskets, etc.

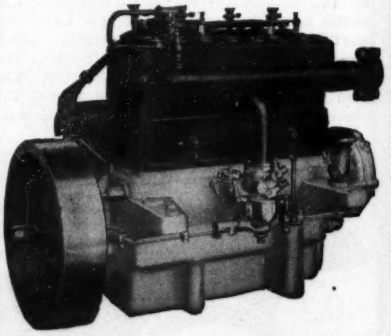
The company also manufacture a brake lining of the same materials, which they claim is being used to a steadily increasing extent because of its many superior qualities, among them the fact that it takes hold easily and quickly, never gets hard, does not squeak, is extremely durable and is not affected by oil, grease, water, mud or dust. Any person interested in specialties of this kind can obtain catalogues and prices by corresponding with the company direct at the address given above.

A Powerful Light-Weight Motor

A NEW motor with a number of improved features that has just been added to their already extensive line by the Red Wing Motor Company, of Red Wing, Minn., U. S. A., is claimed to be an engine that will meet all the requirements of those desiring a reliable power equipment of light weight, suitable for speed boats or cruisers. The new motor, which has been named by the company "Thorobred," while primarily designed for marine service, is excellently adapted for any purpose for which an engine of this class can be employed. Either gasoline or kerosene can be used for fuel as desired, and, if the latter is preferred, an attachment is supplied consisting of a specially constructed exhaust manifold in which the kerosene is heated to a very high point before it enters the cylinder, thus producing conditions that ensure perfect combustion and splendid running qualities.

The Thorobred is made in three sizes, C, F, and B. Model C has a bore 4 1-16 inches, a stroke 4½ inches and the rating is 28 horsepower at 1,000 r. p. m. Model F is the same as Model C, except that the stroke is 5 inches. The weight of both is 390 pounds, or about 12 pounds to the horsepower. They are of the four-cycle type and have four cylinders, which are cast en bloc. Model F has a 4½-inch bore and a 5-inch stroke, and develops 32 horsepower at 1,000 r. p. m., while the cylinders are cast in pairs, L head type. Every part of these motors is interchangeable and they are guaranteed by the manufacturers to run perfectly at any speed, from 200 to 1,500 r. p. m.

Every effort has been made by the manufacturers to produce a thoroughly reliable engine that will give good service, even when submitted to rough usage, and can be sold at a moderate price. The equipment includes interchangeable cast die bearings, aluminum crank case, large hand-hole plates, gear rotary circulating pump; Model R. Schebler carburetor, constant level splash pump circulating oiling system with float oil gauge; packing boxes for the end of crankshaft bearings, push rods enclosed and covered, helical timing gears and cams integral. The valves and valve chambers are large, which ensures smooth running and the development of full power when operated at high speed. The company has prepared a handsome catalogue in which specifications and descriptions of the new engine are given, and they will be pleased to send a copy to any address in the world, without charge, upon request.



The "Thorobred," a compact, powerful motor for speed boats or cruisers

A Hydro-Pneumatic Bottle Washing Plant

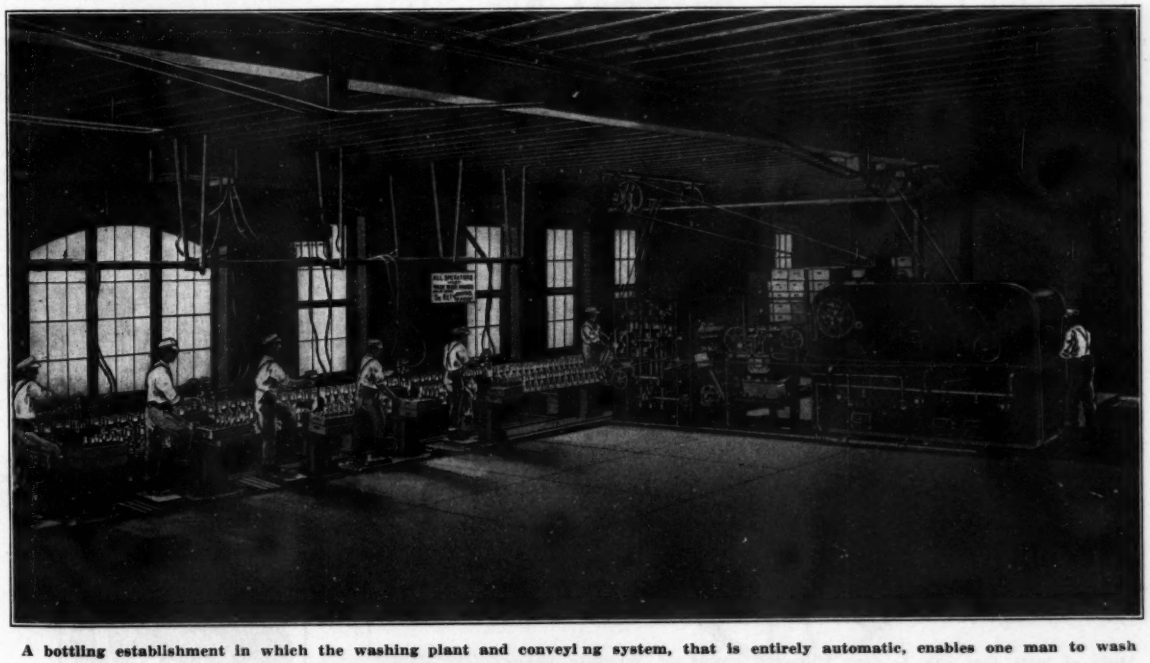
THE accompanying illustration shows a complete hydro-pneumatic bottle washing and conveying equipment having a capacity of 4,000 bottles per hour that was recently installed at the works of the Coca-Cola Bottling Company. The machinery was manufactured by the Ladewig & Stock Company, Waukesha, Wisconsin, U. S. A., and is entirely automatic, requiring only two operators, one at each end. The plant consists of a three-compartment soaker, outside bottle scrubber, hydro-pneumatic inside washer and a conveyor which delivers the bottles to the filler. The soakers, which can be any size and shape desired to meet local conditions, are so arranged that the bottles are filled into the pockets or racks bottom first, so that the machine will not injure the mouths of the bottles. Here the bottles pass through a caustic soda solution and after soaking from 10 to 30 minutes—or longer if desired—are discharged automatically onto the outside bottle scrubber.

On this device a conveyor forces the bottles under a rapidly revolving brush which operates under a continuous stream of water. Meanwhile the bottles are being rapidly revolved, and labels and other matter removed from them is deposited in a receptacle below the machine. They are then automatically fed onto the hydro-pneumatic washer and rinser in an upside down position, being held in aluminum caps, rubber lined, to prevent chipping. The forward movement of the bottles is intermittent, and when a row is in the proper position over the first row of rinsing spouts, each bottle is automatically gripped and held while a stream of water under an air pressure of from 45 to 60 pounds is forced into it, thus giving it a thorough rinsing. This rinsing process is repeated twice and is so performed that every part of the interior of each bottle is reached with the stream, while the air forced in with the water removes any odor that may be contained in the bottle and leaves it fresh and sweet. This insures the keeping quality of the goods subsequently placed therein and is a factor of great importance to bottlers.

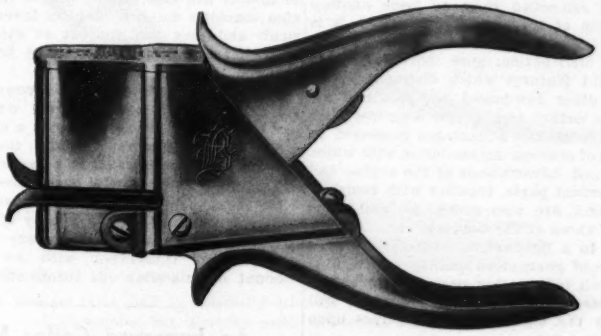
The bottles come from the washing and rinsing machine to the man at the filler, bottom end up, thus insuring absolutely sanitary handling since he can of necessity only take hold of the bottle at the bottom and not at the neck. The machine requires very little room and not only saves a great deal of labor, but a large amount of breakage. There are quite a number of these machines in use at the present time in the United States, Canada, Cuba and Central America.

The manufacturers, in addition to these outfits, offer a complete line of soakers, washers, rinsers and other accessories for smaller plants; also a pasteurizing machine for bottlers of any class of drinks that require pasteurization. This machine is very simple in design and construction and highly efficient, and the temperatures of the preheating and pre-cooling compartments are so regulated in relation to that of the pasteurizing bath as to avoid excessive breakage.

The firm have had 20 years experience building special machinery for the bottling trade and are prepared to place their engineers and experts at the service of their customers and will furnish plans and specifications for up-to-date bottling plants free of charge. They invite correspondence and will advise on any difficulties experienced in the bottling line. They may be addressed direct as above.



A bottling establishment in which the washing plant and conveyi ng system, that is entirely automatic, enables one man to wash 40,000 bottles a day



A handy paper fastener that works like an ordinary punch

What Every Office Man Needs

ALMOST every office man can remember the time when he wanted to fasten some papers together and discovered that he was just out of clips or staples. On other occasions he recalls that, when taking a paper out of the file, he found a number of other papers attached to it on account of the clips becoming fastened together. Nothing is more annoying than to find a dozen or so unrelated letters and papers caught under one clip or to find letters that were supposed to be properly arranged completely mixed up and a dozen or so clips and fasteners scattered about the bottom of the file. Business men who have had any or all of these experiences will appreciate the value of the Bump Paper Fastener. This is a handy nickel-plated office aid that works like any ordinary punch and with a single pressure of the handles fastens two or more papers together permanently, practically tying a neat knot in the papers themselves. This little machine renders the use of clips, staples or pins unnecessary.

Many up-to-date wholesale stationers who employ traveling salesmen to visit their trade have found this fastener very useful as an "opening wedge" for approaching buyers of office supplies. Very often such buyers greet the salesmen with "nothing to-day" before he has a chance to open up his line. With this opening wedge specialty the salesmen reported that they were able to secure the customer's attention and frequently obtain orders not only for paper fasteners, but for other lines as well.

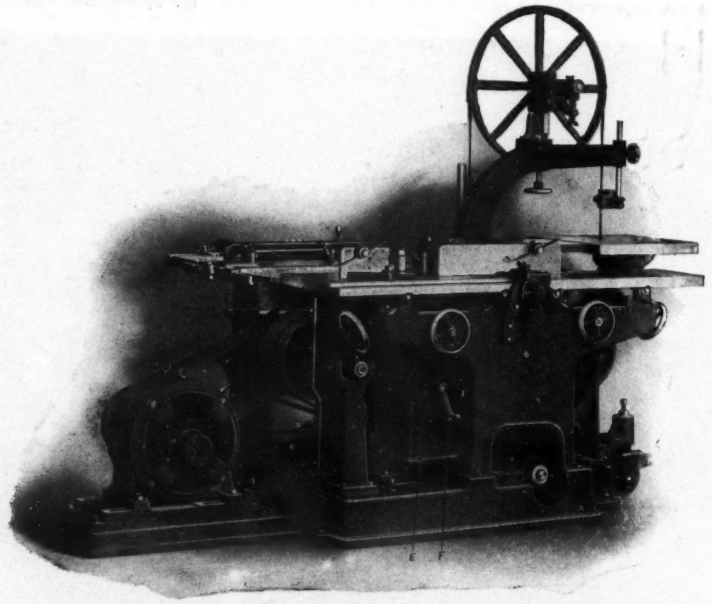
This fastener is made by the Bump Paper Fastener Company, and by addressing Department 11 of this concern at its head office, La Crosse, Wis., U. S. A., those interested can obtain copies of its descriptive literature and proposition to dealers.

An Efficient Gearless Car

ACCORDING to a statement received from the Metz Company, of Waltham, Mass., U. S. A., manufacturers of the Metz "22" gearless car, a moderate-priced but very efficient little four-cylinder roadster, the great demand for information pertaining to this vehicle received from all parts of the world has compelled them to issue another large edition of the catalogue in which it is described. The new edition, which is now ready for distribution, goes more fully into the different features which distinguish this car from other low-priced self-propelled vehicles than earlier issues, and describes with particular detail the advantages possessed by the system of gearless transmission with which it is equipped. Illustrations of the engine and other important parts, together with complete specifications, are also given, as well as a number of views of the complete car. Anyone interested in a lightweight, moderately-priced automobile of guaranteed quality will be able to obtain all information necessary regarding it from this catalogue, a copy of which will be sent by the makers to any address upon receipt of request.

A Money-Saving Machine for Carpenters and Builders

THE illustration which accompanies this article shows the appearance of the Crescent Universal Woodworker, one of the latest productions of the Crescent Machine Co., 9 Columbia St., Leetonia, Ohio, U. S. A. The moderate price at which this machine has been placed on the market and the many



A Crescent universal woodworker, operated by a motor, doing four kinds of work at the same time

kinds of work that can be done with its assistance cause it to be highly recommended for use by carpenters, builders, owners of small woodworking mills, etc., whose business is not of sufficient magnitude to justify the purchase of a number of special machines.

The manufacturers state that the Crescent universal woodworker will meet the requirements of every moderate-sized woodworking shop, as it is thoroughly practical and very substantial and durable. Each machine consists of a band saw, jointer, saw table, reversible single spindle shaper and borer, while if desired additional attachments can be supplied at slight expense that will transform it into a knife grinder, a disc sander or a very efficient hollow chisel mortiser. There are also a panel raising attachment and a tenoner, both of which will very quickly pay for themselves on many kinds of work. In fact, the Crescent universal woodworker may be termed a complete planing mill in itself, as it will enable carpenters and builders to do all their millwork themselves and keep the money that they are now turning over to some one else in their own pockets. Dealers in lumber are also finding this a very profitable machine to own, as the investment is small and they can get out at short notice any kind of a job that may be brought to them.

As shown in one of the accompanying illustrations the Crescent universal woodworker can be arranged for driving with a motor, but where electricity is not available, the machine can be driven just as well by a gas or kerosene engine placed on a special base. Everyone interested in machinery of this class should write to the company for a copy of its catalogue, in which its products are fully described and illustrated with an unusual amount of miscellaneous information.

An Improved Coffee Mill

EVERYONE uses coffee to a greater or less extent and it is probable that more attention is given to its preparation than to any single article of daily consumption. There is no housekeeper, rich or poor, who does not take pride in serving a good cup of this invigorating and popular beverage, so that any article promising to assist in producing the desired results is certain of meeting with a brisk demand, especially if the price be sufficiently low to bring it within the reach of persons of moderate means. The Arcade Manufacturing Company, of Freeport, Ill., U. S. A., claim that this is the principal cause for the remarkable increase in the sales of the "New Crystal Coffee Mill" in all parts of the world, its many superior features, its convenience and its moderate prices creating in every one who sees it a desire to possess one.

This mill, which is shown in the accompanying engraving, is designed so as to be fastened to the wall, closet door or other convenient place, and being in a permanent position is very easy to turn, besides eliminating entirely the liability of scraping the knuckles, as is the case with the old-fashioned mills that are held in the lap. The coffee is placed in the glass receptacle above the grinder, so that the quantity is always in sight, and this jar is sealed by means of a screw top, which prevents the contents from deteriorating in quality. When ground the coffee drops into the measured glass below the grinder, thus insuring that only the proper amount will be used. This is a source of great economy, for it has been proved that

A "Crystal" sidewall coffee mill ready for work

ground coffee rapidly loses its fragrance and other good qualities. With the New Crystal coffee mill only a few turns of the handle is needed to provide the freshly ground beans ready for the pot. It is always ready, and its operation causes less trouble or exertion than to take the coffee out of a package when it comes from the grocer.

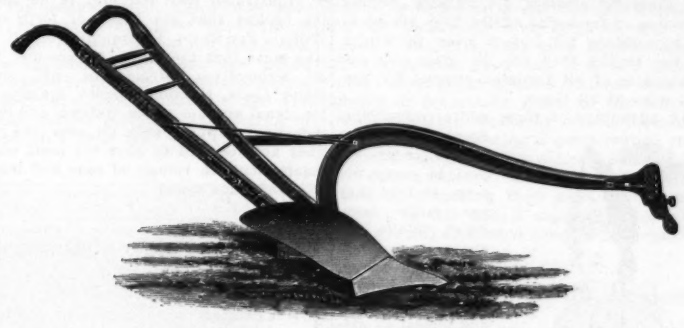
Showing a "Crystal" coffee mill packed for export

Dealers in household furnishings, general storekeepers, hardware merchants and others desiring to handle a quick-selling and profitable article should write to the company for prices and other particulars.

Some of the Things that Make a Good Plow

THE successful manufacturer studies constantly to keep pace with, and even to anticipate, the needs of every locality and every market where he offers his goods for sale. This is especially so with agricultural implements. The various countries, and different regions in the same country, have varying requirements which must be met—the tool or implement must be fitted exactly to the conditions and the work. Both the quality of the material and the pattern of the plow, therefore, are of prime importance.

The No. 4-X Pilot Sulky. By means of the control lever the angle of the front furrow wheel and axle may be changed instantly



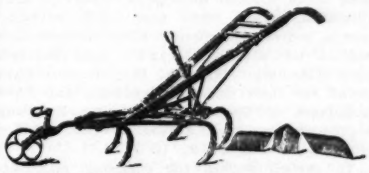
The C. B. Ranger steel plow is especially adapted to black land and soils that are difficult to handle, but it works easily under the hardest conditions

A "chilled" plow is one in which the metal composing the mouldboard, landside and share is subjected to a special process which transforms the structure of the iron and makes it as close-grained as fine steel. This "chill" extends approximately two-thirds of the way through the thickness of the metal, gradually merging with the tough iron at the back, giving the piece unusual strength and resistance to strains and to sudden and excessive jars. It eliminates the possibility of soft spots and of corrosion. It is said that the heaviest coat of rust that may accumulate on a chilled plow can be removed entirely by a few minutes' use.

The shape of those parts of the plow that come in contact with the earth should be such as to cut the soil cleanly, lift the furrow on an easy incline, and turn it over completely so that it will cover the weeds and trash perfectly. Other points are those of adaptability to most kinds of soil, the balancing of the plow so it will always be under the easy control of the operator, and such an arrangement of the draft rigging that the plow can be drawn through the soil with the minimum of tractive force on the part of the horses.

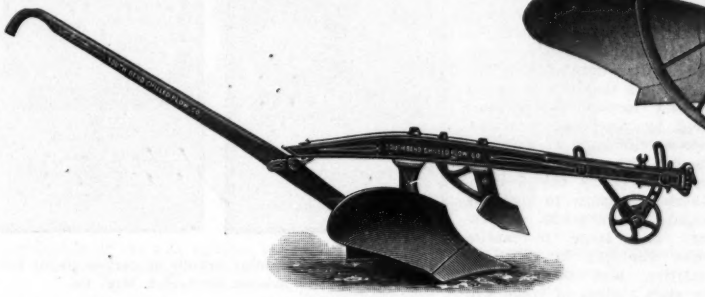
All these things have been carefully worked out in the South Bend chilled plows. Among these implements there are a number that are so typical that they are particularly worthy of mention. One is a plow equipped with a jointer, wheel and one handle. This latter feature has met with extensive approval abroad, as it enables the farmer to walk on the unplowed land instead of in the furrow, as is necessary with a two-handled plow.

A simple, easy-swinging woodbeam plow that will do equally good work on flat land or the steepest hill



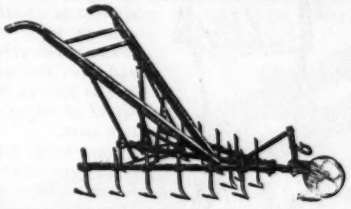
The five-blade Newmarket cultivator, with lever and wheel, is very strong and durable in construction

A feature of another plow is a flanged landside, which holds the plow in the hardest ground and causes it to run steadily. Still other plows are especially adapted for hillside work where it is necessary to plow alternately right and left-hand furrows.

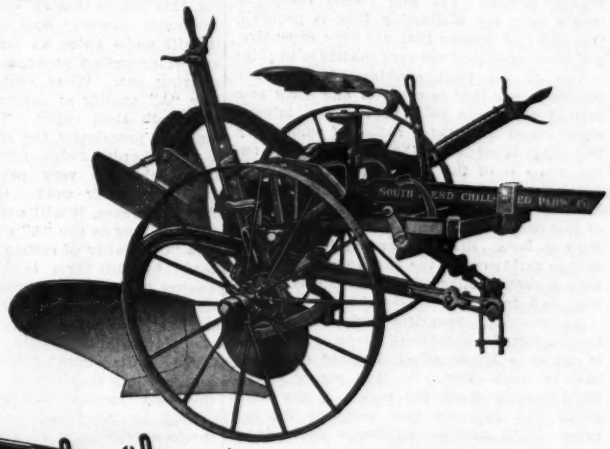


A one-handle plow, made exclusively for export, which enables the plowman to walk on the land instead of in the furrow

One of the newest and most interesting of these implements is the two-way sulky plow. It was originally designed as a hillside plow. The mechanical or horse-lift is its big feature. By simply touching the foot lever it engages the plunger on the ratchet which is attached to the wheel, and the bottom is lifted from the plowing position entirely clear of the ground. The other bottom is easily lowered on turning. This tool has become a great favorite on level lands where it is necessary to plow alternately right and left-hand furrows for the purpose of keeping the plowed ground together, without any unplowed area in the middle, so that it may be cultivated and seeded as fast as it is plowed. It is also useful in plowing irregular pieces of ground.



This 14-tooth Newmarket cultivator, with lever and wheel, is especially adapted to working close to small plants



A South Bend two-way sulky plow is especially adapted to hillside work, or wherever it is desirable to throw the ground all one way

Cultivators and sulky plows are also manufactured in great variety by the South Bend Chilled Plow Company, South Bend, Indiana, U. S. A., whose large catalogue, which will be sent on request, gives a wealth of detail regarding all the products of this company. Dealers in and distributors of agricultural implements, or those who are considering adding this line, will find this catalogue of much interest.

Handsome White Embroidered Dresses for all Seasons

WHITE embroidered dresses are suitable for any season of the year. They are always in style. While they are especially the thing for summer, for walking, driving, motoring or for social affairs, they are equally appropriate for indoor wear in winter. In the tropics they are the most cool and fashionable of all feminine apparel for general wear at all times.

An advantage of these white embroidered dresses—one which will strongly appeal to every woman—is that they are easily laundered. While they appear to be elaborate in design, they can be washed as many times and almost as easily as a perfectly plain garment of similar texture. The embroidery has all the decorative effect of the finest work of this character, but it is extremely durable and not at all difficult to iron. It always looks fresh and new, and will last as long as the fabric of which it is a part.

An attractive 1915 model

The dress that is here illustrated is but one of some 200 different models produced by this manufacturer. These styles are the advance fashions for the spring of 1915, and embody not only the original creations of expert designers, but also the best ideas that are the features of the latest and most attractive foreign models. For this reason these garments have the distinction that is generally indicative of dresses that are very expensive; yet these creations are very moderate in price.

One of the most striking of these new models is one that is made of fine sheer mercerized voile, the skirt in the new minaret style, edged with three ruffles of embroidery. The tunic is made of all-over embroidery, and the waist is of the new raglan cut. In another the waist is handsomely trimmed with fine Valenciennes lace, the yoke in front made of fine net, and finished around the neck with shadow lace. Still another style is in fine eponge ratine cut in the vest and bolero effect, with a shawl collar and raglan sleeves. The vest and front are hand-embroidered.

An especially beautiful design is made of fine imported embroidered crepe. The waist is cut in a bolero effect, finished off in the back in frock effect. St. Gall edging is used for trimming about the neck. A silk moire girdle and Japanese bow complete the costume. Still another handsome dress is of embroidered crepe, made of the newest novelty embroidery—something, the manufacturer says, that the market has not yet seen. The waist is finished with fine shadow lace in a V effect, and the girdle is of fine silk moire.

A striped skirt and waist, in light blue, pink or lavender on a white background, make a pleasing effect in another of these dresses. The coat is made of light blue embroidery, finished with a collar around the neck. There are hand crochet buttons in the center. A satin belt of a harmonious color completes the costume.

The manufacturers of these dresses are Greenberg, Weiner & Co., 133-141 West 21st street, New York City, who will be pleased to send illustrated descriptions and catalogues and prices on request.

Steam Whistles

STEAM whistles of all kinds and sizes are illustrated and described in an interesting booklet that has been put forth by the William Powell Co., Cincinnati, Ohio, U. S. A., who state that their whistles are now in use on locomotives, steamboats, fire engines, motor boats, traction engines, traction cars, for signal and fire alarm systems, and in most industrial power plants all over the world. They are designed to meet the most exacting requirements in volume of tone and intensity of harmonious sound.

Carbon Papers of Unusual Durability

THE first and most important requisite in a satisfactory carbon paper is that the reproduction made by its aid should be practically perfect; the second is that the paper should be highly durable. Both of these factors have been kept steadily in view in the preparation of the extensive line of carbon papers and typewriter ribbons made by the Newton-Rotherick Manufacturing Company. This firm has been engaged in the manufacture of these lines for the past fourteen years and has already built up a considerable export trade without any special effort in that direction. They have now made arrangements, however, to handle their business outside of the United States in the same thorough and systematic way that they have always cared for their domestic business, and have appointed as their exclusive export selling representatives A. J. Alsdorf & Staff, Schiller Building, Chicago, Ill., U. S. A.

In carbon papers the company manufactures four distinct qualities, each of which has special advantages to recommend it. Its goods are made under the well-known "Bullfrog" and "Bronco" brands, illustrations of which are shown herewith. The company states that its "A" quality of "Bullfrog" brand carbon paper is made by a secret process so that the carbon is coated on an absorbent paper, the very fibres of which are saturated with the ink solution. The formula for this ink is known only to the Newton-Rotherick Company, and the firm claims that it will make twice as many impressions as any other carbon paper on the market before wearing out. When crumpled in the hand this "A" quality of carbon paper feels more like cloth than paper. The "B" quality is made in practically the same way, but with a much harder finish, which is desirable for those who are very particular as to the quality of their work. Owing to the hard finish, however, it will not wear quite so long as the "A" quality. The "C" quality of carbon paper made by this firm is a high quality paper at a medium price and is very popular among large mercantile houses who require a strong, brilliant impression combined with durability. The makers state that this is one of the best carbon papers ever offered by American manufacturers at the price at which it is sold. The "D" quality has been produced by the Newton-Rotherick Company to meet the demands of railroads, governments and large mercantile houses who buy in enormous quantities, and dealers who have such a class of trade will find this an excellent line to handle owing to its extremely low price for the quality given.

Firms interested in handling carbon papers should send a small initial order at once for each of these four qualities in order to find out which is best adapted to meet the requirements of their trade. Orders may be sent either direct or through regular export commission houses in the United States, all of which have Newton-Rotherick prices on file. For samples, price lists and further particulars regarding this carbon paper and the firm's extensive line of typewriter ribbons, address the export representatives, as above.

Two of the most popular brands of carbon paper made by the Newton-Rotherick Mfg. Co.

Valuable Preparations for Horse and Cattle Owners

THE myriads of insects that prey on live stock cause great suffering and annoyance. Aside from humane reasons, it pays to protect horses and cattle from these pests. A contented animal gives better returns from the same feed than one which is constantly annoyed. The incessant stamping and tail-switching that live stock have to keep up all summer long means a tremendous loss of energy. It is extra work that consumes extra food. With cows this torment from insects causes a decrease in the milk supply. Science, which concerns itself with many things, big and little, has invented insecticides which are effective protection. One of these is a preparation called "Flyaway," which is made by the Van Tilburg Manufacing Co., Minneapolis, Minnesota, U. S. A.

The directions for using "Flyaway" state that it should be sprayed over every part of the animal to be protected, giving particular attention to the places where the flies are most apt to attack and are difficult to dislodge. This should be done for several consecutive days, after which the applications need not be so frequent. A sponge or cloth may also be used, but care should be taken not to rub the compound into the skin, as that is wasteful and unnecessary. All that is needed is to give the hair a light but complete coating of the oil. It is stated by the manufacturers that the beneficial effect of the use of "Flyaway" soon becomes apparent in an increased flow of milk in the case of cows, and in a marked improvement in the condition of other animals.

The liberal use of "Flyaway" around stables, cow-sheds and other farm buildings is also recommended, as it will drive away the flies and other insects that find breeding places in their vicinity and may carry disease into the home.

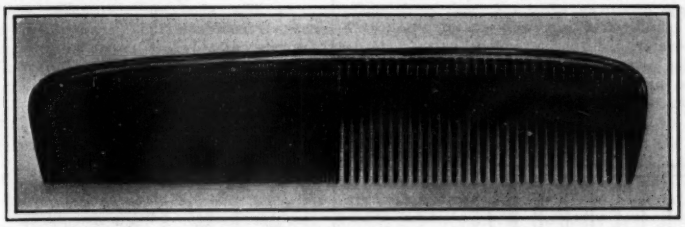
Among other preparations of this nature made by this concern is Van Tilburg's Creola Dip, which they claim to be the best remedy on the market for lice, ticks, scabs, mange and other parasites, as well as for all kinds of skin diseases of sheep, cattle, horses, pigs, dogs and chickens. Applied freely as a disinfectant around the stables, chicken-houses and pig-pens the danger of cholera or other infectious diseases is said to be practically eliminated. The enormous destruction of wealth caused by the spread of contagious and largely preventible diseases among fowls and animals is not generally realized. The loss from hog cholera alone is many millions a year.

Dealers handling this kind of merchandise, or other interested parties, should write for the catalogue that describes the Van Tilburg line of veterinary remedies, addressing the company as above.

Combs and Other Vulcanized Rubber Goods

A GOOD hair comb should be unbreakable. As soon as a comb begins to lose its teeth its usefulness is ended. The "Señorita," "Cardinal," "Ajax" and "Conqueror" brands of combs, made by the Vulcanized Rubber Company, 251-255 Fourth Avenue, New York City, U. S. A., are warranted unbreakable by their manufacturers.

The "Señorita" comb, particularly, has corrugations on the back that enables the comb to glide through the thickest hair, preventing much of the breaking, tearing and snarling of the hair, keeping the spaces between the teeth from filling quickly and making the comb easier to clean.



The Corrugations on the "Senorita" unbreakable dressing comb enable it to glide through the thickest hair without breaking or snarling

Some of the combs made by this company are packed one in a box, and the others are packed in boxes each containing six. There are from two to six boxes in a carton, according to the size of the comb.

This company manufactures practically every variety of combs, from the largest and coarsest to the smallest and finest. They also make twist combs and round combs and hairpins, and a large line of druggists' and stationers' sundries. Their complete catalogue and price list will be sent on request, and they invite correspondence from dealers who are in a position to act as their agents in foreign countries.

A New Automobile Ignition System

THE magneto, which has been the most widely used source of ignition for automobile motors for several years, never has been regarded as a perfect device, owing to the limitations of its construction.

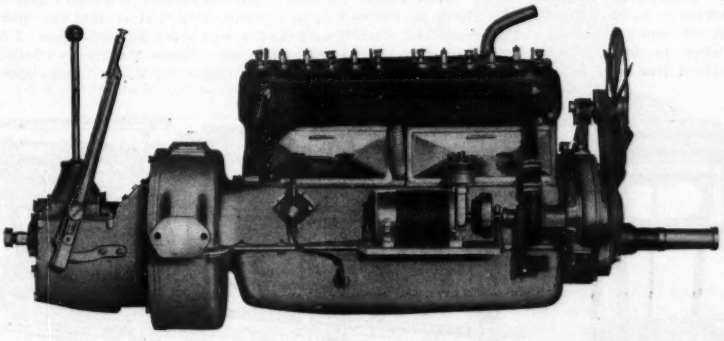
Briefly, the magneto system consists of a coil of fine wire wound on a piece of iron and revolved between the ends of horseshoe magnets to produce a current of electricity. This current is alternating in its character and reaches its maximum intensity at but two points in each revolution of the coil of wire, being of no value at the two intermediate positions.

Consequently, unless the spark is so timed as to occur in the cylinder when the current is at one of the points of its greatest strength, a feeble spark or none at all is produced. To get the best results from a motor, the spark must be advanced or retarded as much as 45 degrees to vary with the load and speed, and it is obvious that the spark cannot be at its maximum strength at all points throughout this range. The usual practice is to time the magneto on a compromise basis and use the lower values of the magneto current at the correspondingly low efficiencies.

A new ignition system that has gained much prominence this year is a combination of the distributor, the transformer coil and the storage battery current. The distributor varies but little from that used on the magneto. Current is supplied from a storage battery at a constant strength at all times regardless of the degree of the spark advance. The spark, therefore, is just as intense at the low speeds as it is at the high, and starting in cold weather is made easy.

Not only is the desired spark obtained, but the system has proved to be as entirely reliable as it is extremely simple. The battery is kept charged by the generator used in the starting and lighting system. This storage battery is part of the regular equipment of the Haynes Light Six car; so that this new system has eliminated one part—the magneto—instead of adding another.

This is but one of several very interesting features of the motor cars manufactured by the Haynes Automobile Company, Dept. D., 1716 Broadway, New York City, U. S. A.



The mechanism of the new ignition system, combining the distributor, transformer coil and storage battery current, that is a feature of the new Haynes car

Large Shipments of Refrigerating Machinery

THE Vilter Manufacturing Company, of Milwaukee, Wis., U. S. A., announce that among their recent export shipments is one consisting of eight carloads of refrigerating machinery for the Sulzberger & Sons Co. of America to their branch house at São Paulo, Brazil, and a similar shipment of two carloads to Wellington, New Zealand. The Vilter Manufacturing Company, who are large producers of ice-making and refrigerating machinery, brewers' and bottlers' machinery, etc., also make a specialty of the building of high grade Corliss steam engines, many of which are to-day in successful operation, both in the United States and abroad.

The company desire to call the attention of owners of electric light and power plants, mills, ice-making and refrigerating plants, factories and other establishments where steam power is used, to these Corliss engines. The Vilter Corliss engines are built to meet all possible power requirements, and can be adapted to belted or direct connected service, and for medium or high speed as may be needed. They are built in a large number of sizes, ranging from less than 100 horse power, suitable for a small isolated electric lighting or ice-making plant, to the largest compound engine developing several thousand horsepower for operating a great central station in a big city. The company has ready for distribution a handsome illustrated catalogue, describing their most recent productions in this line, a copy of which will be sent to any interested person upon request.

Attractive Hardware for Builders

STRENGTH and utility were the first requisites of builders' hardware. To these has now been added beauty. To-day there is as much artistry in some barn-door hinges and hangers, for example, as used to be found in those of more costly structures. Also they have been improved mechanically so as to secure the greatest ease of operation.

The sliding barn-door is far easier to manage, offers a greater protection against rude weather, and is more convenient in every way than the swinging door. It is quite essential that the sliding barn-door equipment should be storm-proof in order to secure durability and freedom of movement. The storm-proof hanger has two wheels in tandem, with anti-friction steel roller bearings. This insures light running—a heavy door hung in this way can be shoved back and forth with very little exertion. The storm-proof rail needs no brackets, and is proof against birds as well as the weather.

The No. 31 wrought steel safety hasp and hook does not need a padlock to hold the door shut

The same firm that makes these devices has placed on the market recently a combination safety hasp and hook, which is shown in the accompanying illustration. This hasp combines the good features of the ordinary safety hasp, and has the further advantage of the hook which keeps the door closed when the padlock is not in use. The screws are fully protected when the hasp is closed, and cannot be tampered with.

The National Manufacturing Company, Sterling, Illinois, U. S. A., also make an extensive line of builders' hardware for dwellings, factories, etc. Dealers in hardware will find their catalogue of much interest. It will be sent on request, and full data regarding any particular specifications can be had promptly by addressing the company as above.

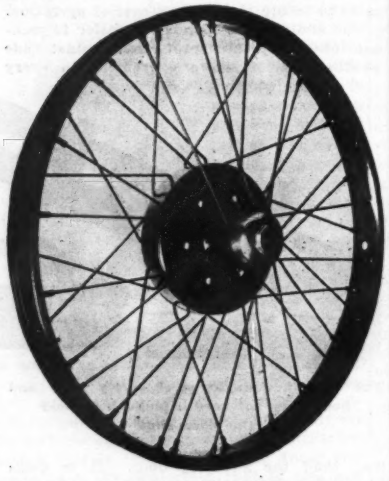
AN unusually attractive catalogue of patented steel post and poles has just been issued, in both Spanish and English, by the Carbo Steel Post Company, Rand McNally Building, Chicago, Ill., U. S. A. Mr. Hugh G. Elwes, representing this company, is now making a tour of South America for the purpose of establishing new agencies and further expanding the trade in their product.

Wire Wheels for Automobiles

ONE of the most interesting tendencies in motor car construction recently has been the increased adoption of wire wheels on the part of many leading manufacturers, while practically all makers offer wire wheels in place of the wooden-spoked artillery type as an option. Formerly the only way in which those desiring wire wheels could obtain them was to specify this type when purchasing a car, but at present the owner of any make of automobile can equip his car with wire wheels at very moderate expense.

It is claimed that wire wheels effect a saving in tire mileage of from 50 per cent. to 75 per cent., and if this is the case a set of wheels would easily pay for itself within six months. The reason for this is the fact that the resiliency of the wire wheel absorbs the greater share of the shocks of the road. Another advantage of the wire wheel is its greater durability in the event of an accident.

These and other points are brought out in the literature of the Universal Welding Co., Saint Anne, Ill., U. S. A. This firm specialize in the manufacture of wire wheels and motorcycle, cyclecar and automobile rims, and state that they are in position to turn out 1,000 wheels and 2,000 rims per day, and can



Showing the scientific construction of the new wire wheel for motor cars

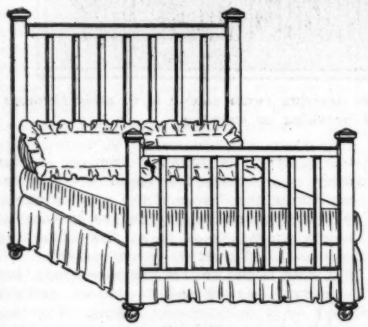
double this capacity if the demand warrants them in doing so.

The accompanying illustration shows a Ford wire wheel made by this concern in large quantities expressly for the Ford car. They are also prepared to supply wheels for any type of car, large or small, and have just completed a new demountable wheel which they will be able to supply in quantities by December 1st. The firm add that they are in position to figure on any quantity of wheels where a high quality inexpensive wheel is required. Their wheels can be made either in the solid or demountable type, and they state that their new demountable wheel is the lightest on the market at the present time. The company can supply Ford wire wheels like the one shown in the illustration, for immediate delivery, in sizes 30 by 3 by 3½ inches or 32 by 3 by 3½ inches, front or rear. They also make a demountable Ford wire wheel. Price lists and export agency terms on this line will be furnished to any address on request.

Artistic Iron Beds

MANY, like Sancho Panza, have blessed the man who invented sleep, but the man who invented metal bedsteads and springs of woven wire, and made sleep easier and more refreshing, was almost as great a benefactor.

The advantages of bedsteads of iron or brass are many. They are practically indestructible through ordinary wear. They are made in an endless variety of artistic

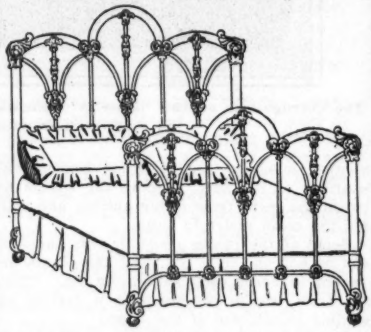


A style of iron bed in which both beauty and simplicity are combined with excellent effect

patterns. They are more portable than bedsteads of wood, and are particularly easy to pack and ship long distances as well as to move from one part of the house to another, or about the room. They can be dusted and cared for with a minimum of labor. They are unaffected by severe climatic changes, and therefore are practically a necessity in tropical countries. They can be had in a wide range of prices.

Because of its peculiar facilities for manufacturing metal bedsteads, the United States has become one of the large exporters of this article. A single maker catalogues more than two hundred patterns or styles, to meet every country's demands—from the severely plain hospital cot to the elaborate canopy bed.

Metal bedsteads are staple articles with the retail merchants in foreign countries. The demand for them is steady if the dealer carries a well-assorted stock. New patterns attract new customers. The merchant who wishes to keep posted regarding this important line will be interested in examining the handsomely illustrated catalogue of the Joseph Turk Manufacturing Company, Bradley, Illinois, U. S. A., makers of the Columbia iron beds. This catalogue, together with full information and prices, may be had by addressing the above firm, which also will be glad to secure responsible agents for their product throughout the world.



This artistic ornamental pattern has several variations and is very popular

Shoe Repairing Machinery

THE repairing of footwear has grown to be a big industry. Its expansion is largely due to machinery for this purpose having supplanted hand labor to a great extent, just as it has in the manufacture of boots and shoes. Nowadays nearly every large retailer of footwear maintains his own repair department, and in every city there are innumerable small shops. The use of machinery in these establishments is steadily increasing, because by that means more efficient work can be done at a lower cost.

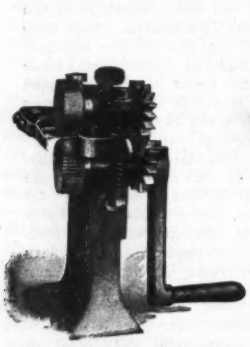
The first shoe repairing machines were adapted from the large devices used in the factories, and began to come into general use only about ten years ago. From them have been evolved the present mechanical labor-saving repair outfits.

A large variety of these machines are now employed. The Progressive Shoe Machinery Company, for example, make twenty-five models of finishing machines for repair work that are especially adapted to the shop or the small factory. By specializing in this line and by solving the new problems as fast as they come up they state that they are able to make machines that are profit-saving, business-building propositions for the shoe repair man.

Finishing machines and stitchers were the first of these machines to be placed on the market. They soon demonstrated their economy of operation, which led to the development of other time and labor-saving devices, such as tap skivers, repair jacks and rolling machines.

The improved Progressive skiver, it is said, will bevel the butts of taps and cut heel wedges with one operation without marring the sole. The manufacturers also claim that it is so light running that a child can operate it and that it will skive any thickness of sole.

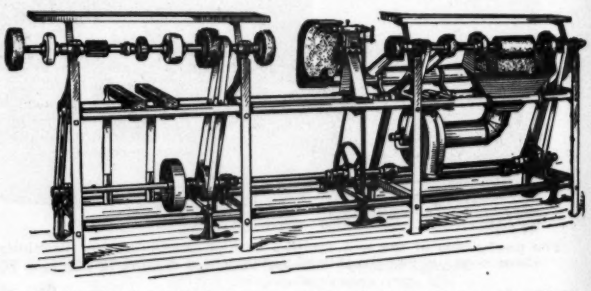
The Progressive Shoe Machinery Company, Minneapolis, Minnesota, U. S. A., has specialized in the manufacture of machinery of this kind and is desirous of expanding its export trade. It will be glad to correspond with those interested in its products and to furnish them with catalogues and full information regarding its line.



The improved skiver does not mar the sole

A very useful quick repair jack

A progressive roller is quite convenient



This Model C-14 shoe finisher can be started or stopped without stopping the one-horsepower motor

Pressed Steel Specialties for Use in the House or Office

EVERYONE knows that "necessity is the mother of invention." There are some careless persons who never can be cured of throwing lighted matches, cigars or cigarettes into waste paper baskets. If the receptacle happens to be a "Dan-Dee" basket, however, the blaze that follows is not likely to do much damage, because this waste-paper basket has no openings from the bottom half way to the top, and it is made entirely of cold-rolled steel, not even solder being used in its construction. It is practically indestructible. If its contents takes fire, there is no special cause for alarm, so far as the flames reaching the floor or passing through the sides of the basket are concerned. The contents may be consumed to ashes without doing any damage, because the basket was made to guard against just such accidents. These handsome fire-proof baskets are made in a variety of finishes—plated, enameled and wood-finish—to match almost any style of furniture. The rims around the top and bottom are perfectly smooth, so that the danger of defacing the office woodwork is eliminated.

A waste-paper basket that is fireproof

There are also "Dan-Dee" letter trays, cash-boxes, strong-boxes, security boxes, ticker baskets and towel baskets.

The cash-box has a strong key lock and affords an efficient protection for valuable papers. The strong-box is made of 16-gauge cold-rolled steel, and is of great strength. An ingenious arrangement permits it to be fastened securely to a desk or in a drawer so that it cannot be carried away. The security boxes are made in seven sizes, and, like the other boxes, are of heavy, cold-rolled steel. The angles and corners, however, are electrically welded instead of being riveted. The ticker baskets are tall and narrow, and are of the same form as those used in brokers' offices and elsewhere to receive the long and narrow paper tape that runs out of the "ticker" machines that record stock and bond transactions and general news. The towel basket is like the ticker basket, except that it has openings in the bottom which afford sufficient ventilation so that an accumulation of damp linen will not mildew.

All these and other pressed steel specialties, known as the "Dan-Dee" line, are made by the Erie Art Metal Company, Erie, Pennsylvania, U. S. A., who will be pleased to send their catalogues and detailed information to all interested inquirers.

Covered Wire Specialties, Buckram and Other Materials for Milliners

ABSOLUTE uniformity in quality and size are of prime importance in the wires used in millinery, artificial flower making and other specialties. Such wires have to stand a great deal of bending and twisting. If they are improperly or unevenly tempered, they break and cause no end of annoyance and loss of time. Uniformity of size must be maintained also. If a wire is not true to gauge—if it is a little larger or a little smaller than its marked diameter—this unevenness makes a good deal of difference to the milliner.

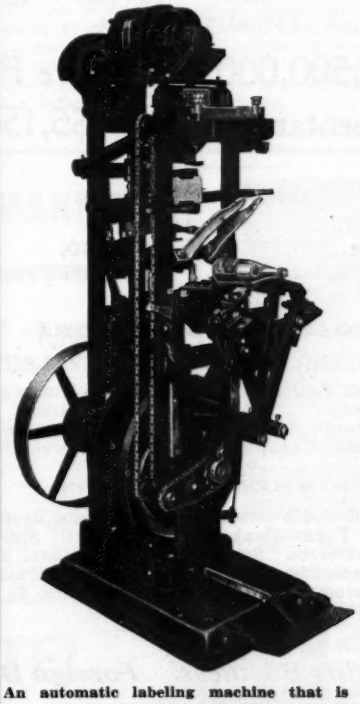
The Holyoke Covered Wire Company, 621 Broadway, New York City, U. S. A., state that they manufacture all the wires they handle, and that they pay scrupulous attention to these important features. This company make covered wires of every description that are used by milliners or for other specialized purposes. Large quantities of such wires are used in making frames and hats in the millinery departments of wholesale and jobbing houses. These wires are either covered or uncovered. The coverings are of satin, silk, mercerized material, cotton or paper.

In addition to manufacturing millinery wires of every description, they are the sole agents and distributors for the product of a large manufacturer of buckram, buckramette and fabrics of all kinds used in the manufacture of hats, hat frames and millinery goods in general. They are therefore in a position to supply the above materials from one source and in condensed shipments.

Price lists and books showing samples of materials, together with detailed information, may be had by addressing as indicated.

A New Automatic Labeling Machine

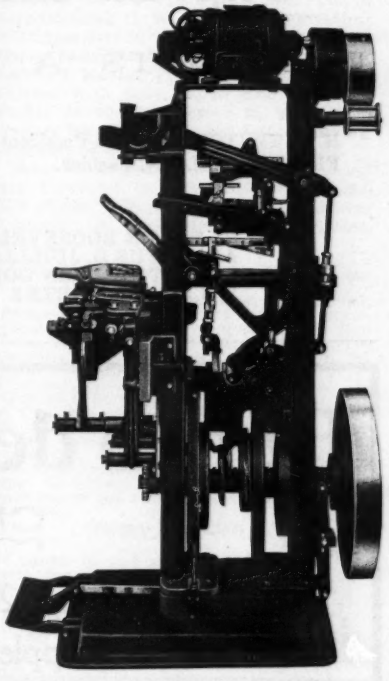
A MACHINE that will label bottles of any shape and size, placing one label on the body and another on the neck of the bottle with one operation, seems almost an impossibility to the average person. Yet such a remarkable mechanism has been devised, and, moreover, one that can be operated without danger to the workmen having it in charge.



An automatic labeling machine that is of great utility in a large bottling department

This automatic labeling machine is of the utmost utility in a large bottling department. The one in question is operated entirely by cut cams and levers, thereby doing away with delicate springs that are likely to get out of order at the slightest accident. It is equipped with the latest improved devices for the protection of the operative.

Still another important point in connection with this device is that should anything suddenly go wrong with the machine, placing the workmen in danger of being injured by breaking glass or in some other way, the machine stops instantly without completing its revolution. All that is necessary is for the operative to remove his foot from the treadle of the machine, a movement that he would perform instinctively under such circumstances.



Another view of the automatic labeler showing some of the details of its mechanism

The Yawman & Erbe Mfg. Co., who make this device, also produce a complete line of filling machines, Goulding power washers, steaming tanks and other equipment that is necessary in every well-equipped bottling department. By reason of strength of construction and excellence of workmanship these machines are able to withstand the heaviest of wear and the most severe climatic changes, which make them especially adapted to the export trade.

This company is perhaps more universally known as manufacturers of filing cabinets and office systems. They fully guarantee their goods, no matter whether bought direct from the factory, from any of their many branch houses, or through any of their more than 1,200 agents or dealers.

Full information regarding the remarkably varied line made by the Yawman & Erbe Manufacturing Co., Rochester, New York, U. S. A., will be furnished by them on request.

High Grade Automobile Specialties

MESSRS. E. EDELMANN & CO., 225-231 West Illinois Street, Chicago, Illinois, U. S. A., who have for a number of years been engaged in the manufacture of high grade automobile specialties, state that the demand for their products abroad has shown so much increase of late that they have determined to devote even more attention to satisfying the wants of their foreign customers. With this object in view they solicit correspondence with responsible agents, or

A low-priced gauge that will register correctly the pressure of air pumped into tires

others, who are in a position to handle an extensive line of specialties that are constantly called for by owners of automobiles in all parts of the world.

Among the products of this concern is a very reliable but remarkably low-priced gauge for all makes of spark-plug pumps and power pumps, known as the "Edelmann Power Pump Gauge." It is extremely easy to attach and will give a correct reading of the pressure of air being pumped into the tires. Another device of a similar nature that is extensively used is the Combination Tire Tester and Shut-Off Connection. This gauge is designed for use in connection with an air storage tank. By attaching it to the end of the air hose and closing the shut-off cock, which cuts off the air supply, the exact amount of air pressure in the tire can be ascertained. The Ford Filler Cap Gasoline gauge is a very useful device for indicating the amount of gasoline in the tank. All that is necessary to do is to remove the filler cap and insert the gauge, and the supply of gasoline is shown at a glance.

All users of storage batteries will find the syringe hydrometer made by this company a great convenience. It indicates accurately whether water is needed in the acid solution or not, and prevents the batteries from deteriorating. The firm also make a Gas Tank Reducing Valve that reduces and regulates the pressure of the gas for the lamps, and thus prevent explosions, broken lenses, etc. In addition to the above the products of this concern include unions, hose bands, ball joints, priming cups, pet cocks, solderless and other compression couplings and an almost endless variety of similar specialties that are in every-day demand wherever automobiles or gas engines are to be found. All are guaranteed by the manufacturers. Every owner of an automobile or dealer in automobile supplies should obtain a copy of the catalogue issued by the Edelmann Company, one of which will be sent to any address in the world upon receipt of name and address.

Salesmen Meet

"ENTERPRISE" food grinding, chopping and slicing devices are sold by dealers all over the world. Such a widespread distribution is due in a great degree to the energy of the company's selling staff, which gathers once a year for the purpose of interchanging views with the executives in every department. This works for greater efficiency and better mutual understanding.

The annual convention of the sales organization of The Enterprise Mfg. Co. of Pennsylvania was held this year in Philadelphia, and concluded its sessions with a banquet at the Hotel Adelphia. The gathering was notable for its spirit of optimism, and "Enterprise" faith in the immediate future was clearly revealed by a review of the aggressive measures adopted both in the manufacturing of goods and for the promotion of sales during the ensuing season. Present at the dinner were H. E. Asbury, President of The Enterprise Mfg. Co. of Pennsylvania; C. W. Asbury, Vice-President and Treasurer; E. E. Kiehl, Secretary; J. W. Gates, Sales Manager; L. G. Hartman, Advertising Manager; W. H. Asbury, A. J. Clymer, J. C. Eddy, W. E. Ham and T. O. Parker of the field force; E. E. Punzelt, Factory Superintendent; and J. C. Armstrong, representing *Philadelphia-Made Hardware*.

Some of the articles in this announcement are illustrated in this issue on page 19. The address of The Enterprise Manufacturing Company is Philadelphia, Pennsylvania, U. S. A.

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(Signed) WILLIAM A. CRANE, Manager.

Sworn to and subscribed before me this 14th day of September, 1914.

PETER R. GATENS, Notary Public No. 21, New York County, N. Y.
[SEAL] (My commission expires March 30, 1916.)